THE AMERICAN NEPTUNE

A QUARTERLY JOURNAL OF MARITIME HISTORY

Volume 52, No. 3 Summer 1992

Editor

Timothy J. Runyan
Cleveland State University

Assistant Editor

Jan M. Copes
Cleveland State University

Book Review Editor

Briton C. Busch
Colgate University

News Editor

Daniel Finamore
Peabody Museum of Salem - Essex Institute

Managing Editor

Geraldine M. Ayers
Peabody Museum of Salem - Essex Institute

EDITORIAL ADVISORY BOARD

John C. Bower, Jr.
Boston, Massachusetts

Edward G. Brownlee
Cherry Hill, New Jersey

Robert H. Burgess
Mariners' Museum

J. Revell Carr
Mystic Seaport

John S. Carter
Philadelphia Maritime Museum

Lionel Casson
New York University

Charles D. Childs
Stow, Massachusetts

E. M. Eller
Rear Admiral, USN (Ret.)

William M. Fowler, Jr.
Northeastern University

Stuart M. Frank
Kendall Whaling Museum

Eben Gay
Hingham, Massachusetts

Barry M. Gough
Wilfred Laurier University, Ontario

John R. Herbert
Spring Hill, Florida

S. W. Jackman
University of Victoria, B. C.

Paul F. Johnston
Smithsonian Institution

Russell W. Knight
Peabody Museum of Salem - Essex Institute

Richard C. Kugler
New Bedford Whaling Museum

Charles S. Morgan
Concord, Massachusetts

W. J. Lewis Parker
Captain USCG (Ret.)

David Proctor
National Maritime Museum

Philip C. F. Smith
Bath, Maine

William N. Still, Jr.
East Carolina University

Giles M. S. Tod
Marion, Massachusetts

Wilcomb E. Washburn
Smithsonian Institution

William D. Wilkinson
Mariners' Museum

The American Neptune is published winter, spring, summer, and fall by the Peabody Museum of Salem - Essex Institute, Salem, Massachusetts. Officers of the corporation are: Randolph R. Barton, President; Joseph D. Hinkle, Esq., Vice-President; Carter H. Harrison, Vice-President & Secretary; and Sanford Anstey, Treasurer.

Support of the journal depends upon receipts from subscriptions; no payment is made for contributions or for editorial work. Subscriptions are accepted only for complete volumes, which coincide with the calendar year. In return for subscriptions received after the beginning of the year, subscribers will receive the numbers that have already appeared in the current volume, as well as the numbers that will be published during the remainder of the year. Single copies are $8.50 each in 1992. Certain complete volumes of back issues are available, although in cases where the supply is greatly reduced some numbers are sold only as parts of complete volumes.

The editors of *The American Neptune* assume editorial responsibility, but they and the Peabody Museum of Salem - Essex Institute do not necessarily endorse the opinions expressed by authors. "Guidelines for Contributors" to *The American Neptune*, a style sheet for manuscript preparation, will be sent upon request to prospective contributors.

The American Neptune (ISSN 0003-0155) is published quarterly at $32.00 per year for domestic subscribers, $35.00 per year for foreign subscribers, and $8.50 per single issue, by the Peabody Museum of Salem - Essex Institute, East India Square, Salem, Massachusetts, 01970. To subscribe, write to *The American Neptune*, enclosing a check or money order in U.S. dollars made payable to *The American Neptune*, or your credit card number (M/C, A/E or Visa), expiration date, and signature. Manuscripts, books for listing, and correspondence should be addressed to the Managing Editor. Second-class postage is paid at Salem, Massachusetts, and at additional mailing offices. POSTMASTER: Send address changes to *The American Neptune*, Peabody Museum of Salem - Essex Institute, East India Square, Salem, Massachusetts 01970.

THE AMERICAN NEPTUNE

A QUARTERLY JOURNAL OF MARITIME HISTORY

Volume 52, No. 3

Summer 1992

COPYRIGHT 1992 BY THE PEABODY MUSEUM OF SALEM - ESSEX INSTITUTE
SALEM, MASSACHUSETTS

PUBLISHED BY THE PEABODY MUSEUM OF SALEM - ESSEX INSTITUTE
SALEM, MASSACHUSETTS

PRINTED IN THE UNITED STATES OF AMERICA
BOOKCRAFTERS, CHELSEA, MICHIGAN

Table of Contents

Editor's Note 148

Articles

A Romance en Route: The Advertising Fiction of the Detroit & Cleveland Steam Navigation Company
by VICTORIA BREHM 149

The Origins and Development of the T2 Tanker
by THOMAS WILDENBERG 155

Descriptions of the Shallop in Western Europe and the New World, 1587-1671
by JOSEPH M. HERBERT 167

Autonomy, Politics, and Embargo in New London, Connecticut, 1807-1809
by GLENN S. GORDINIER 180

The China Trade Brig *John Gilpin*
by THOMAS HOLLYDAY 187

Notes and Documents

Assuming a First Command: Captain Caleb Franklin Carver's Letter to Captain Lincoln Alden Colcord
by PARKER BISHOP ALBEE, JR. 195

Query and Response 199

News 203

Book Reviews

LIONEL CASSON AND J. RICHARD STEFFY, EDS. *The Athlit Ram*
by Shelley Wachsmann 204

PAUL H. SILVERSTONE, *Warships of the Civil War Navies*
by A. Robert Holcombe, Jr. 206

DONALD L. CANNEY, *The Old Steam Navy. Volume 1: Frigates, Sloops, and Gunboats, 1815-1885*
by John D. Milligan 208

GEORGE NAU BURRIDGE, *Green Bay Workhorses: The Nau Tug Line*
by James P. Barry 209

J. R. BRUIJN AND W. F. J. MORZER BRUYNS, EDS., *Anglo-Dutch Mercantile Marine Relations, 1700-1850*
by Simon Ville 210

WILLIAM MORRISON ROBINSON, JR., *The Confederate Privateers*
by Frederick C. Leiner 211

SIR ERNEST SHACKLETON, *South: The Story of Shackleton's Last Expedition, 1914-1917*, ed. Peter King
by C. Jeffrey Stann 212

GARY E. WEIR, *Building American Submarines, 1914-1940*
by Richard A. von Doenhoff 213

Editor's Note

In the last issue of *The American Neptune* I asserted that historians thrive on controversy, and it appears that, among the *Neptune*'s readers at least, that statement is correct. The articles presented in the Spring issue that dealt with the controversy surrounding USS *Constellation* have generated a number of comments by proponents of both sides of the debate. I would like, therefore, to devote a portion of this space to the comments of one reader, Mr. H. Hobart Holly of Braintree, Massachusetts, which strike a balance between the conflicting views:

Dear Mr. Runyan:

I want to compliment you on your decision to publish papers on both sides of the USS Constellation *difference of opinion.*

I feel, however, that it should be made very clear that this is an academic exercise only, and does not affect the significance of the vessel now preserved at Baltimore.

It has never been suggested that the vessel shown represents a frigate of 1797. It is a naval vessel of the mid-nineteenth century either built or rebuilt in 1854. Whatever the outcome of the controversy, that is what people have seen and will see when they visit Baltimore.

A visit to USS Constellation *is an educational experience through which young and old can better understand and appreciate what life was like in the sail navy. No words, models, or replicas can convey the message of the towering rig, the limited headroom, cramped conditions, and other features of a naval sailing vessel. It takes an actual vessel to convey that message and put things in perspective, and that USS* Constellation *does.*

Regardless of the outcome of the controversy — if there is one — it is hoped that the publicity may benefit the efforts to preserve and show USS Constellation *in Baltimore.*

Sincerely yours,
Hobart Holly

Mr. Holly's words make a point that all those interested in maritime history can support — the need for preservation of historic vessels. A belief in the educational value of an actual vessel is one of the motivating forces behind the numerous maritime museums and local ship preservation projects in this country and throughout the world. Some additional comments about *Constellation* appear later in this issue of the *Neptune*. There is little doubt, however, that all the scholars currently involved in research about *Constellation* would agree with Mr. Holly that the educational value of this historic vessel assures her significance.

The recent success of Op Sail '92 has demonstrated the public's keen interest in sailing ships. Thousands turned out to view the replicas of Columbus's ships and the parade of tall ships from around the world which converged on New York harbor on 4 July 1992 as part of the observance of the Columbian Quincentenary, and four hours of live television coverage by PBS brought the event to countless others. The parade opened with a speech by distinguished journalist Walter Cronkite, an avid sailor and student of maritime history, who deserves our appreciation for taking a leading role as an advocate for preservation of historic vessels and for maritime education. The *Neptune* would also like to commend Frank Braynard of the American Merchant Marine Museum Foundation, J. Revell Carr of Mystic Seaport Museum, Peter Neill of South Street Seaport Museum, Peter Stanford of the National Maritime Historical Society, as well as many others too numerous to mention, for their contributions to the success of this major maritime event and to the cause of maritime history.

Not all vessels are "historic," however. Some spend their working lives doing useful but unglamorous tasks, never achieving the fame of a *Constellation*. In a departure from the last issue of the *Neptune*, this issue concerns itself primarily with the subject of vessels engaged in trade, carrying passengers and cargoes in sometimes prosperous and sometimes difficult times. We hope that our readers find their stories equally dramatic and significant.

The American Neptune extends congratulations to the winners of the 1991 Great Lakes History Prize awarded by Cleveland State University's Department of History. First place went to Larry Lankton for his book *Cradle to Grave: Life, Work and Death in the Lake Superior Copper Mines*, and second place went to Mark Thompson for *Steamboats and Sailors of the Great Lakes*.

TIMOTHY J. RUNYAN
Cleveland, Ohio

A Romance en Route: The Advertising Fiction of the Detroit & Cleveland Steam Navigation Company

VICTORIA BREHM

The first steamboats appeared on the Great Lakes shortly after the War of 1812, and by mid-century they had developed a thriving trade carrying cargo and passengers from Buffalo to points west. Some ships were owned by groups of investors; others were put into service by the railroads to provide a water link to their land lines operating between the interior cities of the states bordering the Lakes. When the railroads chose not to operate their own ships, they contracted with ship owners to provide linking service for their passengers. Thus it was, in April of 1850, that the *Detroit Daily Free Press* noted the establishment of a steamship line to run between Detroit and Cleveland in conjunction with the Michigan Central Railroad, and the Detroit & Cleveland Steam Navigation Company was born.[1] In the ensuing years the company expanded into Lake Huron with a coastal line between Detroit and Mackinac Island, and it began offering excursion cruises from Toledo and Cleveland to the Lake Erie Islands. The D & C side-wheel steamers, "floating palaces as grand as any fine hotel,"[2] sailed the Lakes for a hundred years, surviving wars, strikes, depressions, and the encroachments of rival lines, until the company's name, its logo, and the accoutrement of a popular fantasy it had carefully created about itself were as familiar to Lakes travellers as the letters GM are today.

The image of the D & C Steam Navigation Company — speed, safety, luxury, and romance — was largely the creation of one man: Arnold Augustus Schantz, a small-town boy from Galion, Ohio, who began by selling tickets and rose to become the president of the company. Schantz was a colorful man, who once went down to the docks during a rate war and harangued passengers not to sail on a rival line's ships, saying "Don't go on that Old Coffin: she will sink before you get to Cleveland. Go on the old reliable D & C boats; they will always get you there."[3] He was also a shrewd and careful businessman who read each letter addressed to the company. No steamer could cast off from Detroit before he stepped out on his balcony overlooking the docks and rang a bell.[4] It was most probably Schantz who, as General Passenger Agent, conceived the idea of advertising the Lake Huron Line through a series of paperback novels and short stories in order to increase business. These little books, ephemera of a vanished era of leisurely steamship travel, seem to be unique in popular culture. Although the railroads set up book stalls to sell paperbacks, none appear to have commissioned fiction designed solely to advertise travel by train. If the trans-Atlantic shipping lines produced such books, none have survived in this country. The D & C paperbacks, which were published yearly from 1882 until the 1920s, are now scattered in libraries and historical societies around the Lakes. An examination of many of them leads to some preliminary conclusions about the structure of the fiction and its role in advertising the company.

Formally inaugurated in 1882, the Lake Huron Line was a different venture for the company, which heretofore had paid the bills with profits from package freight and commercial travellers moving between Detroit and Cleveland. The company had advertised that route heavily during the Panic of the 1870s with posters, newspaper announcements, and cheap excursion cruises, and its successful weathering of the bad financial climate had encouraged it to expand. But the new "Coast Route to Mackinac" on Lake Huron, relying on a different market, was a problem from the beginning, and its revenues never equaled those of the Lake Erie ships. The market for travel on Lake Huron did not exist automatically as it did

1. *Detroit Daily Free Press*, 29 April 1850.

2. This phrase occurs in nearly every D & C book published, beginning as early as 1884. A complete listing of Great Lakes shipping literature, including the D & C publications, will be available in the fall of 1992 in *Shipping Literature of the Great Lakes: A Catalogue of Company Publications, 1852-1990*, Le Roy Barnett, comp. (East Lansing, MI: Michigan State University Press, 1992).

3. Francis Duncan, "The Story of the D & C," *Inland Seas* 10 (Spring 1954): 31.

4. Duncan, "Story of the D & C," *Inland Seas* 10 (Summer 1954): 122.

on Lake Erie; it had to be created. Moreover, the product was different. One took passage or shipped freight on the Lake Erie ships to move between large cities — Buffalo, Cleveland, Detroit — while the northern terminus of the Lake Huron Line was a small island in the Straits of Mackinac where the company had invested in the new Grand Hotel. They were not, therefore, selling convenience for businessmen and freight shippers. Something else motivated people to go to Mackinac, and after a few false starts, the company evolved an advertising formula in their paperbacks that they would use, scarcely changed, for forty years.

One of the first, *A Lake Tour to Picturesque Mackinac* (1884), is a straightforward, nonfiction description of the fares, the coastal towns served by the Line, and the historic points of interest. It is little different from contemporaneous travel guides save in its larger size and the quality of its printing and design. With few exceptions, the illustrations are limited to silhouettes, a popular art form of the period, which begin each chapter, and to a few small landscape engravings. The text of the book is impersonal in tone and much concerned with exact descriptions of the compass points of sail between ports, the running time, an explanation of the twenty-four-hour clock system, and of course, the tourist attractions along the route. A typical passage reads:

> We now steer fifty-five minutes N. W. x N. to Presque Isle Light. The bold, abrupt shore of this island admits of running close in, and thus affords a fine view of the place. Thence a course N. W. x W.1/2W. for two hours and fifty-five minutes, brings us abreast of Spectacle Reef Light, which is most romantically located.[5]

This was obviously romance only a trained navigator would appreciate, a man who, like most of the top management of the company at that time, had once piloted one of the company's ships. The reader wonders how interesting it was for the book's intended readers, who were "brainworkers" from the cities lining the Great Lakes who needed to rest during July and August. *Picturesque Mackinac* contained no advertising, save that describing the Line interwoven in the text, and was sold on board the two steamers plying the Lake Huron route.

By 1891, however, Schantz had become General Passenger Agent with responsibility for all advertising, and not surprisingly, *Picturesque Mackinac via the D & C* was considerably different. It was, in the words of the Preface, ". . . a book in which the argument should consist wholly of pictures and whose words should be useful only in explaining them to those sufficiently interested to seek further."[6] Pictures there were aplenty, but not necessarily of landscape scenes illustrating tourist stops. Nearly one-half the engravings were of groups or couples on the steamers or at the northern hotels, some serious, some humorous caricatures. There were no drawings of the actual D & C Line ships, save as generic background for travelling groups, and the text had been cut nearly in half, largely by dropping all the maritime terminology so prevalent in the earlier book. Moreover, the tone of the text changed. No longer appealing to tired brainworkers, this book spent much time discussing travel on water as the "acme of delight," a restorative for invalids, and an escape from the household chores. Those who needed to escape the household — women — figure prominently in the illustrations: tête-à-tête in the ship's saloon, in various styles of evening costume, and touring the landmarks. Always elegantly dressed, they hike, fish, and row small boats, but most important, unlike the men in the illustrations, they almost always face the viewer.[7]

The contrast between the two books is striking, illustrative of the company's recognition of its true market for cruises on Lake Huron. Long before the revolution in advertising in the 1920s and 1930s, when manufacturers realized that women did most of the purchasing in America and so directed their advertising campaigns toward them,[8] Schantz had figured out just who decided where the family was to go on vacation and planned his advertising accordingly. He also realized what they wanted, which was luxury, escape, and romance, and in the ensuing years, he proceeded to give it to them in great treacly heaps, lavishly illustrated by full-page portraits of their ideal selves and the D & C ships on which they sailed.

Sometime between 1891 and 1895, Schantz made two important changes in the company's "little publications," as they were called. He stopped charging for the books and started giving them away, supporting their publication with commercial display advertisements bound in the volume. More important, he changed the format of the

5. *A Lake Tour to Picturesque Mackinac* (Detroit: Detroit & Cleveland Steam Navigation Company, 1884), 74. Most of this early guide is equally precise and unromantic, although there are one or two very short imaginative scenes between passengers that prefigure the stories and characters of later books.

6. *Picturesque Mackinac via the D & C* (Detroit: Detroit & Cleveland Steam Navigation Company, 1891), n.p. This description occurs on the first page of the book.

7. I do not wish to suggest that men never face the viewer in drawings, but the emphasis is definitely on women. Often men will be drawn in profile, or at a distance, or shadowed. As I will suggest, these books were written for women, thus the illustrations were designed to mirror their ideal selves. The cover art of current romance paperbacks is much the same, for the same reason.

8. Roland Marchand, *Advertising the American Dream* (Berkeley: University of California Press, 1985), chapters 3 and 6.

Midsummer Voyages was typical of the advertising novels produced by the Detroit and Cleveland Steam Navigation Company from the 1880s to the 1920s to promote its Lake Huron Line.

books from travelogues to fiction. The content — a description of the ships and the places en route — remained nearly the same, but now it was clothed with characters, situation, dialogue, and always, romance. The first novel, *Three On a Tour* (1895), is a model for the novels and short stories that follow, all written to a nearly ironclad formula designed to provide:

> . . . very interesting reading as the authoress has interwoven a love story with descriptions and all the information a tourist desires if interested in a lake trip. . . . This book was written under the special supervision of the Passenger Department of this Company, and we are pleased to say we can vouch for its truthfulness.[9]

9. This description appeared for a number of years with few changes. After the turn of the century, the preface became longer and more romantic, culminating in the 1906 preface to *After Many Years*, which is virtually incomprehensible: "Song and story have touched the brow of history with an added luster, and commerce with her measure of girth and substance, her rhythmic adjustment of bar and bolt, her flexible adaptation of mechanism to the aesthetic spirit which already dominates utility, now reaches out a hand for the incandescence of the pen." In other words, fat commerce now writes with a penlight.

Three On A Tour is the story of a group travelling from a Midwestern city to Mackinac Island for the summer season. On board the D & C steamer, which is described in exhaustive detail, they meet other travellers who become attached to the group for the rest of the summer. The novel begins in the city, follows the steamship from point to point like a time-table, describes the Grand Hotel and tourist attractions of Mackinac Island, and once all the necessary information for the traveller has been set forth, quickly resolves the romances with marriage and concludes. After *Three On A Tour*, the passages describing the steamers and the stops scarcely change from year to year. The roster of character types, albeit with different names and some minor changes, is as predictable as the fitting out of the ships in spring.

There is usually an Invalid, of whom the doctors have despaired, and on whose behalf the group is taking a water trip as a last, desperate attempt at recovery. The Invalid may be of either sex, although male invalids are usually war heroes. The Invalid travels with a Family Group, although it is seldom a typical family with father, mother, and children. Rather, the Family Group is composed of aunts, uncles, nephews, nieces, and assorted friends, most of whom are not married. If a member of the Family Group is married, he or she is either taking the trip as a honeymoon (with the Invalid), or as a Golden Wedding trip. Typical families occur in the fiction only as minor characters whose beautiful and charming children are rescued from dramatic accidents — runaway horses, drowning — by the strongest and most romantically eligible males in the Family Group. The oldest male in the Group, usually an uncle or grandfather, has been coerced into the trip against his will, since he despairs of finding comfortable accommodations on a Lakes steamer or at a resort in the middle of the north woods. He is converted by the trip, of course, cheerfully pays all the bills, and makes plans to return the next summer. He is always unmarried and is usually accompanied by an unmarried sister or aunt, who assumes the duties of chaperon for the young, unmarried girls, of whom there are always at least two. As if the steamer were Noah's Ark, there are always enough young, unmarried men to fall in love with the girls, often men from another, similarly fashioned Family Group met on board ship.

Once aboard the steamer, the Family Group makes the acquaintance of an unvarying cast of fellow travellers. The Artist, who may be a painter or a writer, male or female, notes the beauties of the scenery in artistic terms, usually with reference to Raphael. The Easterner or Englishman travelling alone is an older man with much experience, who can testify that a trip on a D & C steamer to Mackinac Island is surely one of the most beautiful, luxurious trips anywhere in the world. He usually falls in love with the Aunt or the Invalid, proposes at a suitably romantic spot on Mackinac Island, and then reveals that he is wealthy and usually titled. The Tour Guide is the source of most of the information to be conveyed about the ships, the ports, and the history of the region. Since he spends a good deal of time talking, and seems to know everything, he is often a figure of some humor: a "Boomer" from the West who speculates in land, a timber salesman who travels from port to port along the Lakes, a bespectacled history professor, or a young college undergraduate. Older Tour Guides often fall in love with the Aunt, particularly if she is not quite of the same refinement as the rest of the family. Young Tour Guides are repeatedly told they are too young for love and must watch their older brothers or cousins wed. The Family Group usually goes somewhere else on vacation — the East, Europe, the mountains of the South — but once they have taken this trip, they vow never to go anywhere else for the summer except Mackinac, where the confirmed bachelor uncle or grandfather has bought an "elegant" summer home or reserved several suites of rooms at the Grand Hotel for the coming year.

The trip on a D & C steamer has healed the sick, reunited lost family members, solved mysteries, made marriages, and left everyone happy. As the years pass the format of the books changes from novels to collections of short stories called *Water Way Tales*, but the basic formula — a group of travellers whose dreams come true because they took passage on a D & C steamer and stayed at the Grand Hotel — remains the same. No one ever gets seasick. The ship never sinks. And it never once, in twenty years of fiction, rains. All this on waters that are among the most dangerous in the world and which have inspired mimetic fiction much concerned with storm, shipwreck, death, and the loss of dreams. So much for ". . . vouching for truthfulness."

John Cawelti suggests the purpose of formulaic literature is to offer the reader the opportunity to identify with an idealized self-image, a protagonist who is more fortunate.[10] Thus, all of the major characters in the D & C fiction are, without exception, white Anglo-Saxons who are from the well-paid professional classes or are independently wealthy. If at first they appear to be poor, at the end of the story they are revealed as lost heirs or heiresses or they marry into a wealthy family. Other ethnic groups — Irish, Gypsies, Indians — occur only as very minor characters to provide colorful dialect or add zest to the plot. The unskilled workers and European immigrants with large families who made up the largest portion of the population of Lakes cities at this time never appear. Nor

10. John G. Cawelti, *Adventure, Mystery, and Romance* (Chicago: The University of Chicago Press, 1976), 18.

do multi-generational families with several children, since this suggests an overcrowded and less affluent household.[11]

Like The Beadle & Adams Dime Novels which may have been one of Schantz's inspirations, the D & C fiction is formulaic in the extreme and created with the consumer ever in mind. Designed to appeal to the middle and lower middle class urban passengers of the Line who once may have taken an excursion cruise or a short passage between cities, it suggests that for the price of a ticket, which was very reasonable, one would meet wealthy, interesting people, travel through beautiful scenery, and experience a wonderful romance. Although certainly wealthy people travelled on the company's ships, the number of families who could afford to stay two months at the Grand Hotel on Mackinac Island, approximately $40,000 in today's money, did not make up most of the Line's customers.[12] If they had, the books would not have noted that the Line provided a saloon for the deck passengers who sat up all night, nor that meals were to be purchased separately. The D & C ships, their palm court fountains notwithstanding, were hardworking coastal steamers with very small cabins that carried package freight and stopped at all the little towns along the shore to board and debark local passengers, many of whom slept on deck and ate from a paper bag. But the D & C paperbacks were dream books for women, carefully and (as a company memo noted) expensively created for the express purpose of increasing the tourist trade.[13]

The evidence that these books were designed to appeal to women is clear-cut. Women are the agents of power in the stories; it is they who decide to take the trip, to stay at the Grand Hotel on Mackinac, and often which additional excursions to pursue. Young or old, they are attractive if not beautiful, feisty, and absolutely in control of the men at all times. As one Aunt tersely observes, "As long as women kin make fools of men there won't be no lack of fools."[14] The major women characters in the plot are never encumbered with young children, and if they

The illustration of "The Summer Girl" appeared in D & C paperbacks year after year, representing an idealized version of the female passengers who travelled on the Lake Huron Line.

are married to cranky husbands these are summarily dispatched back to the city, leaving the wife at the center of a devoted group of admiring friends. All women become "The Summer Girl," a romantic full-page illustration of a young woman in various sporting costumes that is reprinted year after year.

If one examines the paperbacks chronologically over a forty-year span, it is possible to observe the process by which the company decided just what it was selling and to whom. The books change from being sold to being free, supported by display advertising that is at first heavy with ads for rolling steel mills and ship's chandlers and the like, and later runs to acne cures, modern bathrooms, ornate baby-buggies, fine toilet soap, and the occasional cigar (with a D & C logo, of course). The first illustrations, discreet cut-in engravings of landscapes designed to illustrate the tourist stops, become overshadowed by full-page pictures of the ships and their interiors, finely detailed renderings of women in various costumes which may or may not relate to the plot, and bird's-eye views of the harbors. Such illustrations of tourist stops that remain are lumped into collages, heavy with pictures of the grand houses of important citizens. The covers lose their ornate

11. Marchand, *Advertising the American Dream*, 192.

12. Ibid., 196.

13. Duncan, "Story of the D & C," *Inland Seas* 10 (Spring 1954): 26-27. The *City of Cleveland III*, which was designed by Frank Kirby and came off the ways in 1907, was larger and more palatial than most Lakes steamers. At 390 feet long, with a beam of 54.2 feet and a draft of 22.3 feet, she was the pride of the D & C fleet. She was rated to carry 4,500 day passengers and 1,150 cabin passengers in 390 staterooms and parlors. Perhaps romance was induced by proximity, if not fiction.

14. *A Hero of Manila* (Detroit: Detroit & Cleveland Steam Navigation Company, 1899), 63. The hero in this case is from the Spanish American War, recovering from wounds suffered in the Battle of Manila Bay.

lettered text and are devoted to romantically tinted portraits of women and the ships or calendar art water scenes. The text describing the ships, which early stresses safety and economy, becomes preoccupied with the luxury of the gilded saloons, the dainty fineness of the cuisine, and the marvelously efficient kitchens, bathrooms, and staterooms, all designed for the pleasure of the traveller. The dry recounting of history and statistics blooms into full-blown romances of every variety of plot where "Fortunes glittered through the festive scenes, beauty held the reign which it can never be forced to relinquish, gaiety held joint sway and not a wall flower was to be seen. . . ."[15]

The Detroit & Cleveland Steam Navigation Company had discovered that what it was selling was not a mode of conveyance from one point to another, but rather fulfillment of nonrational yearnings, and that to do so successfully it should mirror popular fantasies rather than worry about reality.[16] What better way to do this than to pattern advertising copy after the ubiquitous sentimental romances of the time? Reality could be left to sardonic travel writers, one of whom once described a stormy Lake Huron steamer trip as the opportunity to "vomit amidst mauve plush and rosewood."[17]

Although it is tempting to study the D & C fiction because it is unique, its relevance to popular culture is also important. Compared to the advertising campaigns of the 1920s and 1930s that Roland Marchand describes in *Advertising The American Dream,* the D & C paperbacks were decades ahead of their time. While most nineteenth-century advertisers were using what Marchand terms "objective" ads — pictures of factories with their owners — the D & C Company was developing a sophisticated "subjective" technique that concentrated on the benefits of owning the product rather than the product itself, a method that would not come into prominence until after World War I.[18] The D & C ads combined this subjectivity with a fictional presentation, a forerunner of the sociodrama advertising of the twentieth century. It is unlikely that either the company or Arnold Schantz was aware of all the ramifications of the advertising campaign; the theory of advertising had scarcely been set forth and trade journals in the field were rare. What seems more likely is that once having recognized that women made the vacation decisions for a household, perhaps through Schantz's experience as a ticket agent, the company then looked at the most popular reading matter for women and planned accordingly. During a long voyage it is natural to read; what could be better than supplying the passenger with advertising disguised as romance? The D & C "romances en route" are stories sealed in a glass bubble of sunshine, probably as unreal to their first audiences as they are to us today, but had they not been successful as advertising, they would not have been continued.

The strategy of selling steamship tickets via escape into romantic fiction worked. Although the Lake Huron Line never made as much money for the company as the Lake Erie Division, it always made a profit until costs rose abruptly in the wake of the LaFolette Act.[19] Even after the revenues derived from freight declined when the lumber industry moved away from the eastern shoreline towns of Michigan, the route ran in the black. Considering the shortness of the summer season, as opposed to the eight or nine months of bookings the company could plan for the Lake Erie Division, this is remarkable. Moreover, after the tradition of a new novel or book of short stories each year had become established, other steamship lines on the Lakes attempted imitations of the D & C paperbacks. Although never so lavishly nor so regularly produced, those that have survived are mute testimony to the hope that what was working for the D & C Line might work for them too.

15. *A Hero of Manila,* 69.

16. Marchand, *Advertising the American Dream,* 10-13.

17. *Random Journal Leaves of a Free and Easy Trip to Lake Superior on the Steamer Illinois From Detroit, August 10th to August 20th, 1864* (Detroit: John Slater, 1964).

18. Marchand, *Advertising the American Dream,* 11-12.

19. The LaFollette Seaman's Act of 1912 established national standards for the manning of merchant marine vessels. Among other provisions, it required passenger vessels to maintain a strict ratio of passengers to crew, which often forced companies to increase their crews or reduce the number of passengers booked per trip, sometimes by half. Although the Act was later amended, the profits of Great Lakes steamship companies never recovered. The combination of the LaFollette Act, the increasing power of the unions, the development of railway and highway networks, and the growing popularity of vacationing by automobile effectively destroyed Great Lakes steamship travel by the 1940s. The D & C line suspended operations on 9 May 1951.

Victoria Brehm writes frequently about Great Lakes maritime literature. Her Sweetwater, Storms, and Spirits: Stories of the Great Lakes, *a collection of short stories set on the Lakes, was published by the University of Michigan Press in 1990. A graduate of the University of Michigan and the University of Iowa, Brehm is a professor of American Literature at Grand Valley State University in Allendale, Michigan. She holds a Master's License to ten tons for the Great Lakes and Inland Waters.*

The Origins and Development of the T2 Tanker

THOMAS WILDENBERG

During the four years of U.S. involvement in World War II, this country's shipbuilding industry built 720 merchant tankers, almost double the number that had been completed in the previous thirty years.[1] The vast majority of these vessels were built for the United States Maritime Commission as part of the emergency shipbuilding program of World War II. More than half of all tankships built during this period were produced to a standard design officially designated by the Maritime Commission as the T2-SE-A1 type or some variation thereof. These oilers were commonly called "T2" tankers, a name which has become synonymous with this class of ship.

The "T2" class of tankers is historically important because of the number of ships which were constructed to this design. Only the standard Liberty ship (EC2-S-C1 type) was built in larger numbers.[2] Although the T2 represents the largest single class of tankship ever constructed, and it is unlikely that any tanker will ever be produced in greater numbers, little has been written about the design and development of these vessels. The story of the T2 is of further interest because it reveals important aspects of naval planning during the prewar period and the impact of such planning on the commercial shipbuilding policy of the United States.

The author would like to thank Ms. Mary Jane Harvey, Records Management Officer, U.S. Maritime Administration, for her aid in obtaining the records of the U.S. Maritime Commission without which this article could not have been written. The author gratefully acknowledges the help of Captain Charles M. Renick, Executive Director, and Mr. Frank O. Braynard, Curator, American Merchant Marine Museum Foundation, for their assistance in obtaining and providing access to the Maritime Commission Plans cited herein.

1. F. G. Fassett, Jr., ed., *The Shipbuilding Business in the United States of America*, 2 vols. (New York: Society of Naval Architects and Marine Engineers, 1948), 1: 78, table 9.

2. Ibid. 1: 92, table 19. Although the total number of Victory ships exceeded the total number of T2 tankers, more T2-SE-A1s (481) were built than the most numerous Victory type, the VC2-S-AP2, of which 272 were constructed.

The need to develop a standard design for a tanker which could be rapidly produced in time of war became apparent in the early 1930s when the U.S. Navy began to revise its principle plan for war, code named "Orange." As the level of shipping and shipbuilding fell during the Depression, the Navy was increasingly concerned over the deterioration of the merchant marine. It correctly anticipated the large numbers of merchant ships that would be needed as naval auxiliaries during wartime and recognized that the lack of such vessels would severely impair the Navy's ability to implement War Plan Orange.

The Navy Department was well aware of the shipping problems encountered during the First World War, and it did not want to repeat them if possible. So in February 1934, the Navy furnished the U.S. Shipping Board Bureau in the Department of Commerce with a list of ships which it would require in the event of a national emergency along with a request that the Shipping Board study the problem of how to supply the tremendous number of vessels involved.[3] The Navy had been cooperating with the Shipping Board for a number of years, having previously provided a list of design features which the Navy felt should be included in any ships that were constructed using government subsidies.[4] Incorporating these features into the plans and specifications of a new ship would permit that ship to be economically converted into an auxiliary naval vessel at a later date. This policy was adopted by the Shipping Board and became one of the

3. J. W. Barnett, Acting Chief, Division of Finance, to Director, U.S. Shipping Board Bureau, "Standardization of Merchant Vessels and Coordination thereof with War Plans," 28 February 1934, p. 1, File 505-1, Box 6998, U.S. Maritime Administration Record Group 178, Records of the U.S. Maritime Commission, Washington, D. C. (hereafter MARAD, RG 178). See also Thos. C. Hart, Chairman, General Board, to Secretary of the Navy, "Policy In Regard To Merchant Vessels," date stamped 27 February 1937, p. 5, File 442, Box 175, Records of the General Board, Record Group 80, National Archives, Washington, D. C. (hereafter NA, RG 80).

4. Hart, "Policy In Regard To Merchant Vessels," 3.

Type Designations Used by U.S. Maritime Commission

All ships built to a specific design developed by the Maritime Commission were classified according to a somewhat standard system of letters and numbers which were used to describe the basic characteristics of each class. All such type numbers started with a capital letter, such as T for tanker, C for cargo, P for passenger, etc. A prefix letter was sometimes added to signify a specific program. Thus the Liberty designs of the "Emergency" construction program began with an "E," Victory ships began with a "V," etc. The first letter(s) was immediately followed by a single digit which was used to indicate the *relative size* of the vessel, although this convention was not strictly adhered to once the Commission's building program entered high gear. The type and size indicator was followed by a hyphen which preceded another two-digit number signifying the propulsion system and the number of screws on the vessel. Another hyphen preceded a final two- or three-digit number which was used to indicate variations in the design. The EC2-S-C1 designation used to describe the first Liberty ship design provides a typical example of a type number. Translated according to the standard conventions followed by the Maritime Commission, it reads: emergency cargo [ship], approximately 450 feet long, steam powered with single screw, the first cargo version.

conditions that the Board established as a precedent to obtaining a construction loan under the provisions of the Merchant Marine Act of 1928.

The number of ships requested by the Navy was immense — well over one thousand vessels were listed.[5] J. W. Barnett, Acting Chief of the Shipping Board's Division of Loans and Sales, realized that a building program of the magnitude proposed by the Navy could only be accomplished by standardizing all aspects of a ship's design, including all of the machinery, fittings, and other equipment which would be needed for its construction. He therefore recommended that a program be established within the Division of Loans and Sales for the standardization of merchant vessels to be constructed during a national emergency.[6] Since the Shipping Board did not have its own design staff, Barnett suggested that a technical unit be established within the Division and asked for authority "to engage the services of a competent naval architect, and four to six experienced ship draftsmen and estimators."[7]

On 12 March, a formal request was made by the Navy to proceed with the program outlined by Barnett, with the stipulation that the standard ship types to be developed should be prepared in accordance with the characteristics suggested by the Navy for each type.[8] Although the Shipping Board would be responsible for the program, it was understood that the designs would be approved by the Navy and that the Bureau of Construction and Repair and the Bureau of Engineering, as well as any others involved or interested in the program, would lend their cooperation and technical assistance. Within a few days Barnett had drawn up a one-page memorandum authorizing the program that the Navy had requested, which was issued on 16 March and approved the same day by the Director of the Shipping Board, Henry Heimann.[9]

Barnett wasted no time in getting started. He quickly engaged George G. Sharp, then a well-known naval architect in New York, along with J. E. Schmeltzer and William G. Esmond of his staff. The three men reported for duty on 26 March 1934 and were immediately installed in rooms 3938 and 3940 of the Navy Building.[10]

In view of the close relationship of the program to the Navy Department, a special joint committee was formed to study the design requirements of the various classes of ships and to provide technical guidance as the work progressed. A number of naval officers as well as several representatives of the Division of Loans and Sales

---

5. Ibid., 5-8.

6. Barnett, "Standardization of Merchant Vessels and Coordination thereof with War Plans," 1-5.

7. Ibid.

8. Letter from Secretary of the Navy to Director, U.S. Shipping Board Bureau dated 12 March 1934 as referenced by Henry H. Heimann, Director, U.S. Shipping Board Bureau to Secretary of the Navy, 26 March 1934, Records of the Secretary of the Navy, Secret and Confidential Correspondence File (SC)A16/QS1, NA, RG 80.

9. J. W. Barnett, (Acting) Chief of Division (Loans and Sales), memorandum to the Director (Shipping Board), 16 March 1934, approved and signed by Henry H. Heimann, Director, the same day, File 505-1, Box 6998, MARAD, RG 178.

10. Barnett to the Acting Director (Shipping Board Bureau), memorandum dated 7 August 1934, File 505-1, Box 6998, MARAD, RG 178.

comprised the committee, known in the Navy as the Joint Board for the Standardization of Merchant Vessels. The stated objectives of the Joint Standardization Board were:

> (1) To develop designs of the various types of merchant ships that would be acceptable to the Department of Commerce and the Navy Department as bases for construction loans.
>
> (2) To develop basic designs that would be useful to designers and ship owners as a guide to features in merchant ships which would make the latter adaptable to naval auxiliaries without interfering with their commercial peacetime use.
>
> (3) To have available designs of standardized vessels which could be built in large quantities during a national emergency when requirements for merchant tonnage would be greatly expanded.[11]

By August the design staff hired by the Shipping Board had prepared sets of preliminary plans along with the required design data for three standard types: a cargo ship (type C-2), a tanker (type T-2), and a combination passenger and cargo ship (type P-2).[12] These were presented to the Joint Standardization Board for discussion during its fifth meeting, held on 27 August 1934.[13] The tanker design had progressed the furthest, as sets of hull lines and a general arrangement drawing had already been prepared for this ship type. Although the Board discussed a number of technical details regarding this design, it is clear from the minutes of the meeting that its primary concern was the problem of developing an acceptable design for a standard commercial tanker which would be economical to construct and operate, yet meet the Navy's requirement for high speed (fifteen knots was specified for naval service).

The Joint Standardization Board again took up the subject of the proposed design for the T2 tanker at the end of November. Much of the discussion concerned the advantage of various sizes of vessels and the trend in commercial requirements as to capacity and speed. The Board decided to continue with the development of the 485-foot (between perpendiculars) design originally proposed, in spite of a suggestion to increase its length to five hundred feet.[14]

Design work on the T2 continued throughout 1935 without further mention, although at some point the length changed to the five hundred foot length previously discussed. The Joint Standardization Board finalized the design by June of the following year and published it in booklet form.[15] None of these booklets has been located to date. It appears, however, that the design called for a vessel with the characteristics shown in Table 1 below.[16]

Table 1
Characteristics of Shipping Board Bureau T2 Design

Length, between perpendiculars	500′ 0″
Length, waterline	514′ 0″
Beam, molded	70′ 0″
Draft, molded	30′ 7″
Displacement	23,060 tons
Speed*	16 knots
SHP	9,320 normal
No. Screws	1

*Suggested for naval use

The booklet of plans prepared by the Shipping Board was distributed to the shipbuilding community for review and comment. Unfortunately, the design was not favorably received. The negative comments of H. F. Horton, a naval architect employed by the Newport News Shipbuilding and Dry Dock Company, are typical of those received by the Shipping Board. He was highly critical of the design, stating:

> The design departs so much from usual tanker arrangements that it seems to us likely that the owners will hesitate to adopt it for the reason that considerable departures from usual practice, no matter how good they may be, generally develop unanticipated troubles.[17]

One can only conclude that the design arrangement developed by the Committee on Standard Merchant Vessels was totally unsatisfactory to commercial tankship

11. Hart, "Policy In Regard To Merchant Vessels," 3.

12. "Memorandum of Fifth Meeting," Committee on Standard Merchant Vessels, Division of Loans and Sales, U.S. Shipping Board Bureau, 28 August 1934, File 505-1, Box 6998, MARAD, RG 178. This is the first documented use of the "Type" designations C-2, T-2, P-2, etc.

13. Ibid.

14. "Memorandum of Sixth Meeting," Committee on Standard Merchant Vessels, Division of Loans and Sales, U.S. Shipping Board Bureau, 23 November 1934, File 505-1, Box 6998, MARAD, RG 178.

15. W. H. Standley, Chief of Naval Operations, to Secretary of the Navy, 1 December 1934, NA, RG 80.

16. A. B. Court, Officer-in-Charge, Central Drafting Office (C&R) to Chief of the Bureau, "Fleet Oil Tanker (AO) - Design," date stamped 1 September 1936, Confidential File AO22-24/S1, Box 11, Records of the Bureau of Construction and Repair, Record Group 19, National Archives, Washington, D. C. (hereafter NA, RG 19).

17. H. F. Norton to Mr. J. C. Peacock, Director, United States Shipping Board Bureau, letter dated 24 July 1936, File 505-1, Box 6998, MARAD, RG 178.

operators. Although no tanker was ever built to this plan, the information gained during the development and testing of the various lines forms was to prove invaluable to the Navy's Bureau of Construction and Repair, where it would be used to further the development of the Bureau's own design for a new fleet oiler.[18]

Although forty-one combination passenger and cargo ships totaling 480,000 tons had been funded by the Shipping Board prior to 1934, no new ships had been constructed under its auspices since the inception of the Committee for the Standardization of Merchant Vessels.[19] Few ships were built during the Depression, and only eight ocean-going freighters were constructed in U.S. yards between the years 1927-35.[20] Large numbers of merchantmen continued to be laid up in reserve, even though most of the ships in service were rapidly approaching the twenty-year mark. Since few of these ships were suitable for the Navy's needs, the War Plans Division of the Office of the Chief of Naval Operations proposed a merchant shipbuilding program which would permit "the constant replacement of existing vessels in the United States Merchant Marine with modern vessels of gradually increasing speed capabilities."[21]

The Navy's endeavors to encourage a strong merchant shipbuilding program were rewarded with the passage of the Merchant Marine Act of 1936. Signed into law by President Roosevelt on 29 June 1936, the Act established the development and maintenance of a strong merchant marine "capable of serving as a naval and military auxiliary in time of war or national emergency . . . composed of the best equipped, safest, and most suitable types of vessels" as a declared policy of the United States.[22] The bill provided financial assistance to the maritime industry through a series of government subsidies and/or payments, including a construction-differential subsidy, an operating-differential subsidy, and the payment of the cost of national defense features incorporated into a vessel. To administer the provisions of the Act, the bill created the U.S. Maritime Commission which superseded the activities of its predecessor, the U.S. Shipping Board Bureau.

After passage of the Merchant Marine Act, a number of owners and/or operators, among them the Standard Oil Company of New Jersey, expressed an interest in constructing tankers having higher speeds than had been customary in the past. This information made its way to Admiral William H. Standley, then Chief of Naval Operations, who felt "that the Navy should exert every influence in the direction of higher speed for [the] country's tanker tonnage.[23] Admiral Standley was convinced of the need to include speed as a national defense feature in any construction program authorized by the Maritime Commission. He believed strongly that "the United States Government should not give subsidies or pay for national defense features unless the ships were well adapted for use as auxiliaries."[24] Nevertheless, Standley realized that the requirement to provide excess speed might detract sufficiently from the commercial usefulness of these vessels as to preclude their construction. If the Navy insisted on the need for high speed, none of the merchant ships which it desired might ever be built, thus defeating one of the main purposes of the Merchant Marine Act — the creation of an adequate, well-balanced merchant marine.

The question of providing aid for the construction of high speed oil tankers had been the subject of considerable discussion within the Maritime Commission. At issue was the legality of considering "excess speed" as a national defense feature. The problem was not resolved until July 1937, when the Commission's General Counsel issued an opinion affirming excess speed as a legitimate feature required for national defense.[25]

In August Joseph Kennedy, then Chairman of the Maritime Commission, submitted the Commission's first construction program to Congress. This ninety-five ship building program included ten tankers at a total budgeted price of $28,540,000.[26] Also before Congress was a bill to construct six naval auxiliaries in fiscal year 1938. Included in the list of proposed vessels was one fleet oiler. While this bill was still before Congress, Commissioner Emory S. Land (who had recently retired from the Navy after serving as Chief of the Bureau of Construction and Repair) suggested that the Maritime Commission assume responsibility for securing tankers which were capable of

18. The Bureau even agreed to contribute additional funds to ensure that adequate testing was conducted in the Navy's experimental model basin. See "Memorandum of Sixth Meeting" for details.

19. Fassett, *The Shipbuilding Business in the United States of America* 1:56.

20. Ibid.

21. Director of War Plans to Chief of Naval Operations, "Estimate of the Situation for Fiscal 1936," 31 March 1934, File (SC)L1-1 (1936), NA, RG 80, as cited by Robert H. Levine, "The Politics of Naval Rearmament, 1930-1938," (Ph.D. diss., Harvard University, 1972), 469.

22. Merchant Marine Act, 1936, Stat. 1985, Title I, Sec. 101.

23. W. H. Standley, Chief of Naval Operations, "Encouragement by Navy Department of the Construction of Fast Oil Tankers by Commercial Interests," Serial 4982, 14 November 1936, NA RG 19.

24. Standley to Secretary of the Navy, 1 December 1936 (attached to Serial No. 1736), NA, RG 80.

25. Max O'Rell Truitt, General Counsel (U.S. Maritime Commission), 26 July 1937, "National Defense Features," File 505-1-2, Box 96, MARAD, RG 178.

26. *The New York Times*, 17 August 1937, 8.

meeting the Navy's needs.[27] Instead of constructing the tankers included in the Commission's building program, Land proposed that the Commission simply subsidize the cost of providing these vessels with the increased power which would be required for high speed.[28] He estimated the added cost for this feature at $300,000 to $700,000 per ship. If the Commission could convince the oil companies to purchase such ships, then the total cost of the Commission's tanker program could be substantially reduced.

Throughout the fall of 1937, the Maritime Commission conducted negotiations with various oil companies for the construction of high speed tankers. It finally reached an agreement with the Standard Oil Company of New Jersey to build twelve such tankers with the government paying the added cost of the larger engines needed for increased speed as well as the other "national defense features" desired by the Navy. The two parties signed a formal contract for these twelve vessels (designated as the T3-S2-A1 type) on 3 January 1938.[29] On the same day, Standard Oil signed separate construction contracts with four shipyards: Sun, Federal, Bethlehem-Sparrows Point, and Newport News. Each yard was to build three twin-screw tankers of 16,300 deadweight tons. The total contract price for each tanker was $3,129,677, of which $880,250 was allocated to cover the cost of the national defense features.[30]

It appears that these vessels were similar (if not identical) in design to the fleet oiler which had been developed under Land's auspices while he was Chief of the Bureau of Construction and Repair.[31] The Bureau's Central Drafting Office (CDO), then located in the Brooklyn Navy Yard, had prepared the lines for the new tanker. The underwater hull form developed by CDO was adopted from, and greatly influenced by, the hull form of the Shipping Board's T2 design, which had demonstrated excellent performance characteristics when tested at the Bureau's experimental model basin.[32] Although naval architect E. L. Stewart had prepared the plans and specifications for Standard Oil's tanker, it seems certain that the twin-screw design (S. O. Co. of N. J. #652 NDF) evolved out of the Navy's efforts to develop a new fleet oiler.[33]

Robert L. Hague, General Manager of Standard Oil's Marine Department, had first expressed his company's interest in building 18-knot tankers in the early fall of 1936.[34] He corresponded with both Admiral Standley, then Chief of Naval Operations, and Rear Admiral Land, then head of the Bureau of Construction and Repair, on this subject. The documents which have survived strongly suggest that the three men met to discuss Hague's interest during the last week of October.[35] The Bureau of Construction and Repair was then in the midst of preparing its design for the Navy tanker which was to be included in the proposed auxiliary building program for 1937. As Chief of the Bureau, Admiral Land would have been extremely interested in the latest design practices used by Standard Oil, especially since the Bureau had not designed an oiler since the *Kanawha* class of 1915. Admiral Land, who was adept at cultivating valuable friendships, would certainly have used the meeting as an opportunity to become better acquainted with Bob Hague.

Congress initially failed to act on the Navy's auxiliary program, however, causing the Bureau to suspend further work on its design for a new fleet oiler. At this point, Admiral Land retired from the Navy and was subsequently appointed to the U.S. Maritime Commission. Land's long experience in naval ship construction and his wide knowledge of the shipbuilding industry led to his immediate assignment to supervise the Maritime Commission's long-range construction program. When Congress again

27. Emory S. Land, Memorandum for the Chairman, "Tankers," 26 July 1937, Emory Land manuscript, Shipbuilding Data, 1937, Box 7, Library of Congress, Washington, D. C.

28. E. S. Land, Commissioner, to General Counsel (Maritime Commission), Memorandum: "Payment for Increased Speed of Tankers As a National Defense Feature," 30 June 1937, "National Defense Features," File 505-1-2, Box 96, MARAD, RG 178.

29. "The Cimarron," *Marine Age* (March 1939): 9-10; PR (Press Release) 138 issued 4 January 1938, "Construction Loans and Subsidies — Standard Oil Company of New Jersey," File 502-23, MARAD, RG 178.

30. PR 138, 4 January 1938. Standard Oil accepted the lowest bid submitted for a commercial tanker, then added the differential based on the bid for its NDF (national defense features) design. Sun Shipbuilding & Dry Dock was low bidder in both instances. Copies of the original bids can be found in the file noted above, n. 29.

31. RAdm. W. P. Roberts, USN (ret.) to Joseph Kennedy, 25 September 1937, E. S. Land File, Box 161, Record Group 178, National Archives, Washington, D. C.; H. G. Bowen, Bureau of Engineering, and E. S. Land, Bureau of Construction and Repair, to Chief of Naval Operations, "Encouragement by Navy Department of the Construction of Fast Oil Tankers by Commercial Interests," date stamped 11 December 1936, Confidential File AO22-24/S1, Box 11, NA, RG 19.

32. Court, "Fleet Oil Tanker (AO) - Design," NA, RG 19.

33. William D. Leahy (Acting Secretary of the Navy) to Chairman (U.S. Maritime Commission), letter dated 2 November 1937, File 502-23 (Part 1), MARAD, RG 178.

34. Ira A. Campbell (General Counsel for the American Steamship Owners Association) to Robert L. Hague, letter dated 28 September 1936, "National Defense Features," File 502-1-2, Box 96, MARAD, RG 178.

35. Robert L. Hague, Standard Oil Company, to Admiral William H. Standley, Chief of Naval Operations, letter dated 13 October 1936, "National Defense Features," File 502-1-2, Box 96, MARAD, RG 178; E. S. Land, Chief of Bureau, to Hague, letter dated 30 October 1936, General Correspondence File AO21/S, Box 374, NA, RG 19.

took up the issue of building naval auxiliaries, Land made his suggestion that the Commission assume the responsibility for securing tankers which would be capable of meeting the Navy's needs.[36] Since the design of any tanker financed by the Maritime Commission would have to be approved by the Navy, it would have been in Land's interest to see that Hague was provided with the preliminary plans already prepared by the Bureau of Construction and Repair. It is safe to assume that this information was passed on to Standard Oil, thus leading to the establishment of the 652 NDF (National Defense Features) tanker design prepared under the company's auspices.[37]

Although it was not publicized in contemporary press accounts describing the contract awards, it appears that the Sun Shipbuilding and Dry Dock Company of Chester, Pennsylvania was selected as the lead yard to build the first of the T3-S2-A1 tankers. This was to be expected, since Sun was one of the country's foremost builders of tankships and had responded to Standard's tender with the lowest bids. It is not clear, however, what contractual arrangements were made between the parties with regard to the development of the final set of lines which would have been required before actual construction could begin.[38] The original tender specified that these were to be developed by the builder in conjunction with model tests which were to be conducted at the Navy's Experimental Basin.[39] Standard Oil specified this aspect of the design process in order to ensure the desired trial speed of eighteen knots (an exceptional speed for a tanker of that era) stipulated by the Maritime Commission. Power curves later published by the Maritime Commission prove that the Navy conducted tests of the T3-S2-A1 at the Bureau's model basin under contract to Sun, but it is still not clear who prepared the final lines plan.[40] It seems probable, though, that these were drawn by Sun after the results had been reviewed by the Navy and the Commission's technical staff. The company had previously offered to cooperate with the Navy in its efforts to develop a new fleet oiler, and Sun's engineers would have had to work closely with the Bureau's staff while tests of the underwater hull form were undertaken at the model basin.[41] It is also likely that the Commission's Technical Division, which was responsible for approving the designs under the conditions of the Merchant Marine Act of 1936, relied heavily upon Sun to provide most of the technical details as the division had yet to be fully staffed.

The first of the T3-S2-A1 tankers, the *Cimarron* (MC Hull No. 2), was launched at the Sun yard on 7 January 1939. She was immediately taken over by the U.S. Navy, which had acquired her by way of the Maritime Commission. With an overall length of 553 feet and a beam of 75 feet, *Cimarron* was one of the largest tankers then constructed in the United States and certainly the fastest built to that date. Although rated at 13,500 SHP, her twin, steam-powered, geared turbines delivered an impressive 16,900 shaft horsepower during her trials, propelling the *Cimarron* at a speed of 19.28 knots while fully loaded.[42] This was considerably greater than the typical, 13-knot, 4,000 horsepower, single-screw vessels which characterized the majority of commercial tankers built during this period. Of the twelve T3-S2-A1 tankers constructed for the Maritime Commission, three were acquired directly by the Navy, two were purchased by the Keystone Tankship Company, and only seven were completed by the Standard Oil Company as originally planned. All were taken over by the Navy before the start of World War II and commissioned as fleet oilers.

Although the Maritime Commission wanted to add twelve more "national defense" tankers to the merchant fleet, it could not find other commercial operators who would accept the T3-S2-A1 type, a design which was considered uneconomical to operate and/or too large for the narrow channels which provided access to many of the loading docks serving the various oil companies. An acceptable compromise was reached when the Socony-Vacuum Oil Company proposed to modify the design of its newest tankers, the *Mobilube* and *Mobilfuel*, so that

36. Land, Memorandum for the Chairman, "Tankers."

37. These were represented by Standard Oil Company of New Jersey plans #1213 and #1214.

38. The original contract documents were not retained by the Maritime Commission and no other copies have surfaced to date.

39. John G. Pew, President, Sun Shipbuilding & Dry Dock Company, to R. L. Hague, 6 December 1937, File 502-23 (Part 1), MARAD, RG 178.

40. Shaft Horse Power and R.P.M. Curves generated by the Experimental Basin specifically for the T3-S2-A1 design were done under contract to the Sun Shipbuilding & Dry Dock Company. U.S. Maritime Commission, "Report of 18 Knot Speed, Maneuvering And Endurance Trials Of The Twin Screw Turbine Driven Tanker Seakay," March 1939, Author's Collection.

The author has been unable to locate the original lines drawing used in the construction of the T3-S2-A1's built by Sun. The earliest lines plan discovered to date for this important ship type is dated 5/13/38 and bears the Bethlehem Steel Sparrows Point drawing number H4329-11-9, "Ship Plan Data Sheet" No. 12, prepared by Robert Lowery (Division of Transportation, National Museum of American History, Smithsonian Institution), forwarded to the author, 15 August 1991.

41. Land to Sun Shipbuilding & Dry Dock Company, 14 April 1936, Pew to Land, General Correspondence File AO/S1-1, Box 374, NA, RG 19.

42. "High Speed Navy Tanker Cimarron," *Marine Engineering and Shipping Review* (February 1939): 103-104.

they could obtain a speed of sixteen and one-half knots.[43] After signing the contracts for the Socony-Vacuum vessels, the Commission announced that it was requesting sealed bids for the construction of six more tankers similar in design to those building for the Socony-Vacuum Company. Potential builders were requested to submit bids for two different types: the T2 of sixteen and one-half knots and the T2A of thirteen and one-half knots.[44] The difference in costs would be used to justify the cost subsidy to be paid for the added speed. Bids were to be submitted no later than 19 March 1940.

The lowest bid for the sixteen and one-half knot type was received from the Sun Shipbuilding and Dry Dock Company.[45] Lower still was the alternative bid submitted by Sun for ships of its own design. These were offered at a price which was $40,000 per vessel less than the base bid, even though the proposed ships would be twelve and one-half feet longer than the Socony-Vacuum type.[46] Based on its bid, Sun was subsequently awarded contracts to build five national defense tankers for the Keystone Tankship Company. The first two ships were ordered on 20 April 1940,[47] and orders for three additional vessels were signed in June.[48] As was the case with the Socony-Vacuum deal, the Maritime Commission would pay the cost differential for the increased speed.

43. "The Second Group of National Defense Feature Tankers," *Journal of the American Society of Naval Engineers*, no. 2 (1940): 487. In October 1939, the Maritime Commission produced a set of preliminary lines for a new "T3 type" tanker which appears to have been identical to the Socony design except for the forefoot, which was modified to include a semi-bulbous bow. The inclusion of this feature may have improved the speed characteristics of the vessel had it been included in the ships as constructed. However, photographs of the lead ship, USS *Kennebec* AO-36 (ex-*Corsicana*), do not show this feature, nor do the original builder's table of offsets which were reviewed by the author. See "T-3 Preliminary Lines and Body Plan," Drawing No. T3-S5-0-1, 3 October 1939, and "Mold Loft Offsets: 15,850 Ton D. W. Tanker for Socony Vacuum Oil Co. Inc.," Bethlehem Steel Company, No. H-4353-11-6, American Merchant Marine Museum Collection, Kings Point, NY. See also E. L. Stewart, "New Developments in Tanker Design," *Marine Engineering and Shipping Review* (December 1944): 186.

44. "Maritime Commission Asks Bids for Constructing Six Tankers," *Marine Engineering and Shipping Review* (March 1940). The T2 designation used here appears to be generic in nature. There is no evidence that the Commission had developed a specific design type at this time.

45. *Marine Age* (April 1940): 20.

46. Ibid. The bid was $2,620,000 for each of two ships.

47. *Marine Age* (May 1940); Sun hull nos. 221 & 222, "Quarterly Report of Merchant Vessel Construction Underway in American Yards - July 1, 1940," *Marine Engineering and Shipping Review* (July 1940): 80. According to Sun's Record of Ships the contract date was April 18, William duBarry Thomas to author, 13 April 1992.

48. Sun hull nos. 231, 232, 233, Thomas to author, 13 April 1992.

The tankers ordered by Keystone were similar to three vessels (Sun hull nos. 208, 209, and 210) ordered by Standard Oil in February.[49] Although the size and dimensions of both ships were the same, the Keystone versions had to have much more powerful engines to meet the speed of sixteen and one-half knots required by the Navy. The first of her class, *Aekay*, was not completed until February 1942.

The passage of time has obscured the genesis of Sun's design for these five hundred foot (between perpendiculars) ships, but it appears likely that they too evolved from the Shipping Board's T2 Booklet, especially since the characteristics of Sun's design (see Table 2 below and compare with Table 1 on page 157) were strikingly similar to those of the original T2.[50] As we have seen, Sun's staff had worked closely with both the Maritime Commission and the U.S. Navy in finalizing the lines for the Commission's T3-S2-A1 design and would have been in a position to adopt the best features of both designs for its own needs.

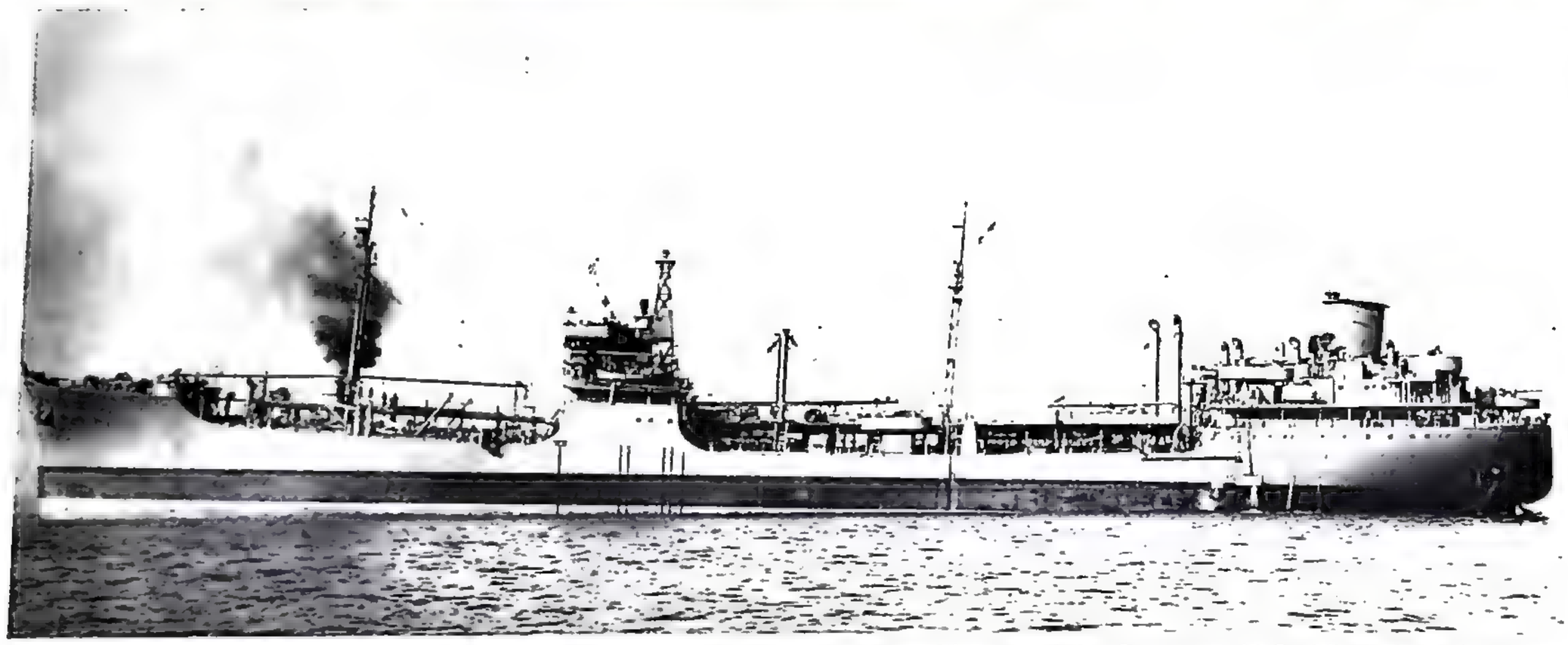
Table 2
Characteristics of Sun "T2" Design

Length, between perpendiculars	500′ 0″
Length, overall	520′ 0″
Length, waterline	510′ 6″
Beam, molded	68′ 0″
Depth, molded	37′ 0″
Draft, molded	29′ 11″
Displacement	21,762 tons, full load
No. Screws	1

The progression of the ships built to Sun's five hundred foot design is somewhat confusing due to the changes initiated by Standard Oil prior to the start of construction. From the evidence available, it appears that the first three ships ordered by Standard Oil were transferred to the account of the Petroleum Shipping Company, a subsidiary of Standard-Vacuum Oil, which in turn was owned jointly by Standard Oil and Socony-Vacuum on a fifty-fifty basis. The first of these vessels, the *Stanvac Melbourne*, was completed in June 1941, and was the first Sun tanker to be built with corrugated

49. Although ordered by Standard Oil of New Jersey, it appears that these ships were intended for the Petroleum Shipping Company.

50. "Final Lines," Drawing No. 208-700D-D, Sun Shipbuilding & Dry Dock Company, American Merchant Marine Museum Collection, Kings Point, NY. This drawing provided the lines plan for vessels to be constructed under Sun contract nos. 208-210, 217-18, 221-22, 226-28, 231-32, 235, and 237.



Photographs of the *Cimarron* (AO-22), above, after conversion to a naval auxiliary, and the *Patuxent* (AO-44), below, illustrate the remarkable similarity in the T3-S2-A1 design and that of the tankers built by Sun for the Keystone Tankship Corporation, of which *Aekay* was the lead ship. *Patuxent*, sister ship to *Aekay*, was originally laid down as *Emkay*. She was acquired by the Navy after delivery and converted to a fleet oiler. Photos courtesy of the National Archives, Washington, D. C.

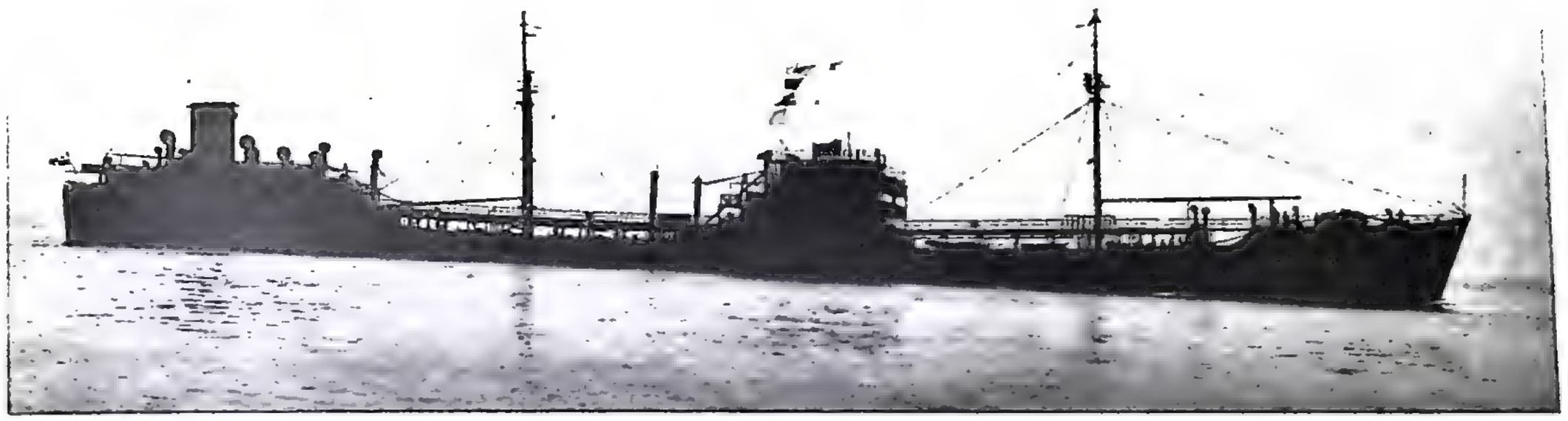
bulkheads, a design feature which reduced the amount of steel needed in the hull by forty-five tons.[51] This cost-saving feature was clearly intended to compete with the "Frear fluted" design introduced by Bethlehem's Sparrows Point Yard.

Before the first of these ships was laid down, Standard Oil ordered several more tankers from Sun similar to those ordered by Keystone but designed for sustained speed of fifteen and one-half knots.[52] These ships would be constructed without the aid of government funds, and like the Keystone ships, would feature flat bulkheads reinforced with welded stiffeners. Minor changes were also made to the midship island structure. Standard Oil placed orders for two such vessels in November 1940.[53] The first, the *Esso Albany II*, was delivered one year later on 15 November 1941.

51. L. A. Sawyer and W. H. Mitchell, *Victory Ships and Tankers* (Newton Abbot, UK: David & Charles, 1974), 213; E. S. Dillon, L. C. Hoffman, and D. P. Roseman, "Forty Years of Ship Designs Under the Merchant Marine Act, 1936-1976," (New York: The Society of Naval Architects and Marine Engineers, 1976), 9.

52. Sun hull nos. 217 and 218. These were obviously ordered as replacements for the four T3-S2-A1 types which had been recently taken over by the U.S. Navy.

53. *Marine Engineering and Shipping Review* (December 1940): 118.



The *Stanvac Melbourne* in New York harbor on 12 March 1942. This is one of the few surviving photographs of this era showing tankers built during the early 1940s in civilian dress. Most were launched after the United States' entry into World War II and were quickly armed or immediately taken into the Navy and converted into fleet oilers. Photo courtesy of the Steamship Historical Society Collection, University of Baltimore Library.

As the new year started, Sun had orders in hand for eleven 500-foot tankers which would be built in three versions: the Petroleum Transport type of thirteen knots, the fifteen and one-half knot version for Standard Oil, and the Keystone ships of sixteen and one-half knots (see Table 3 on page 166).

In the meantime, the shipbuilding industry had undergone such a dramatic recovery that most existing yards were rapidly reaching the limits of their capacity. The lack of additional building ways was quickly becoming a bottleneck to further expansion, and both the Navy and the Maritime Commission were actively vying for the use of Sun's facilities.[54] The White House resolved the issue during a Presidential conference held on 14 March 1941.[55] The Navy would withdraw from the Sun yard in return for the Commission's promise to place no orders with Newport News or New York Shipbuilding.

Assigning Sun's output exclusively to the Maritime Commission formed the basis of the largest tanker construction program in history. When the President's Lend-Lease emergency shipbuilding program was formally announced on 19 April 1941, it included seventy-two tankers which were allocated to the Sun Shipbuilding and Dry Dock Company.[56] Because Sun's eight ways were already committed to private tanker construction, the Commission agreed to pay for a twelve-way, government-owned addition which was added in two stages. The first four ways were adjacent to the existing yard and the next eight were upstream of a small creek adjoining the yard.

The ships ordered by the Maritime Commission were to be "similar in type to the vessels [Sun was] now building for the Petroleum Shipping Company."[57] Because of a projected shortage of reduction gears, turbo-electric drive was selected for the main propulsion machinery.[58] Sun was familiar with this type of equipment, having previously completed the turbo-electric tankers *J. W. Van Dyke* and *Robert H. Colley* for the Atlantic Refining Company.[59] One other change was made to the original design: the traditional sheer of the upper deck was eliminated in favor of an increase in the molded depth.[60] This change simplified construction and was another feature adopted from the design of the Atlantic vessels.

54. Frederic C. Lane, *Ships for Victory* (Baltimore: Johns Hopkins University Press, 1951), 51-58.

55. Ibid., 57.

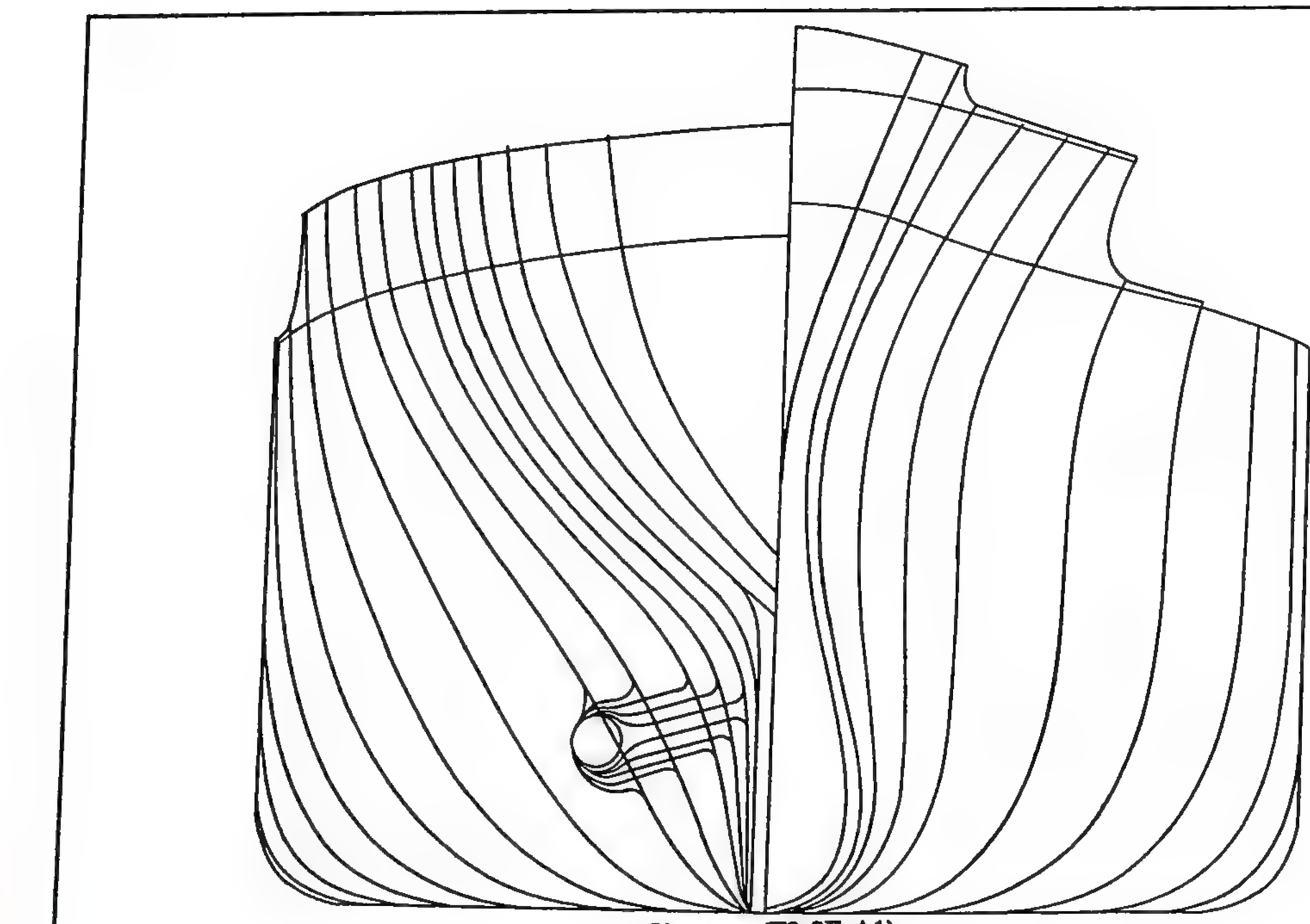
56. Ibid., 56; *Marine Engineering and Shipping Review* (May 1941): 120.

57. *Marine Engineering and Shipping Review* (May 1941): 120.

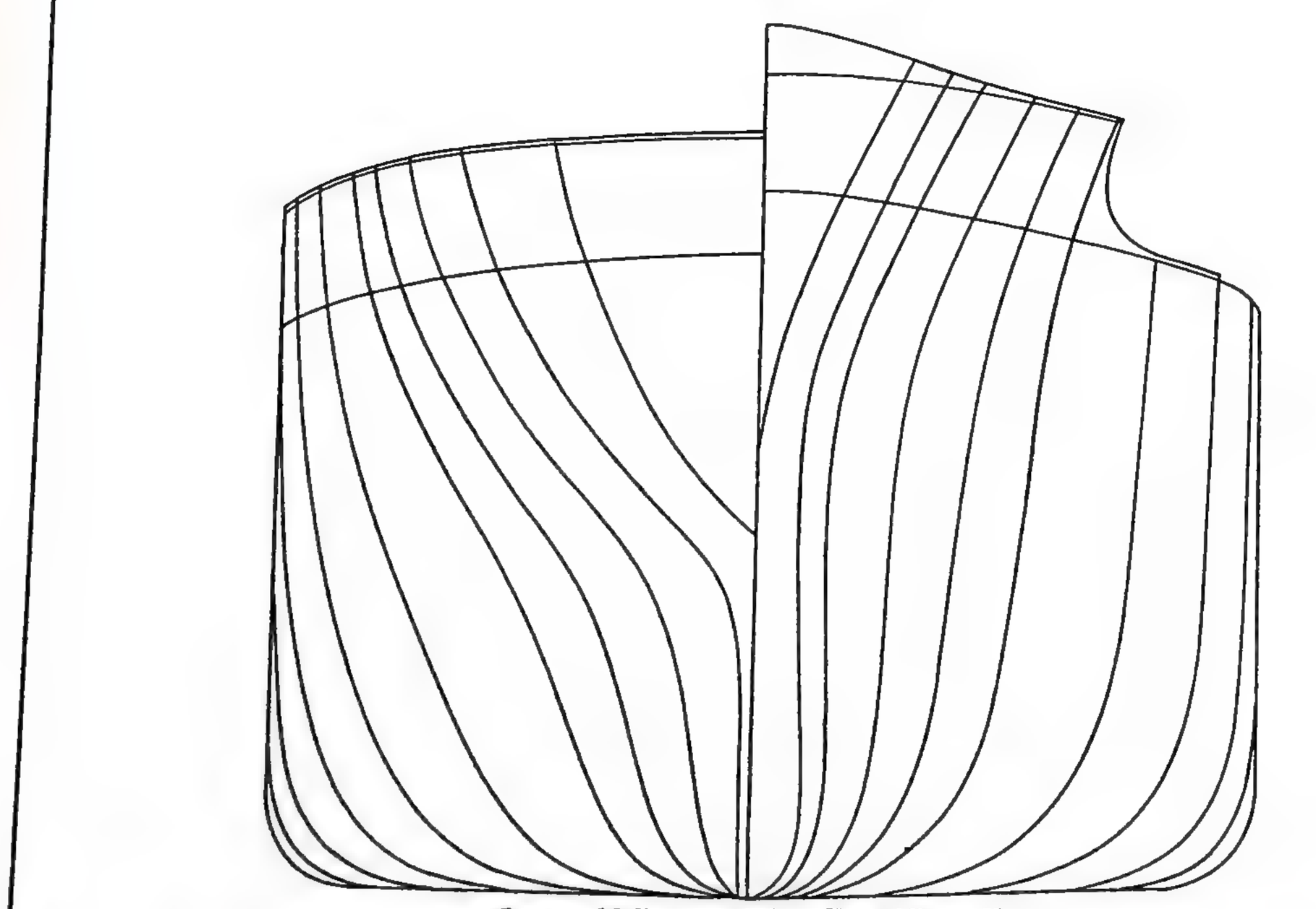
58. Lane, *Ships for Victory*, 56; A. Patersen, "Geared Turbine vs. Electric Drive For Ships," *Marine Age* (January 1942): 24-25.

59. The first of these, the *J. W. Van Dyke*, was completed in 1938. For more information on these vessels, see Lester M. Goldsmith, "The High-pressure, High-temperature, Turbo-electric Tanker J. W. Van Dyke," *Marine Engineering and Shipping Review* (December 1938): 548-58, 570.

60. E. L. Stewart, "New Developments in Tanker Design," *Marine Engineering and Shipping Review* (December 1944): 186-87; T2-SE-A1 General Arrangement & Inboard Profile, U.S. Maritime Commission Drawing. No. T2-SE-A1-S9-1 (Alt. 2), dated 14 May 1940, Division of Maritime History, National Museum of American History, Smithsonian Institution, Washington, D. C.

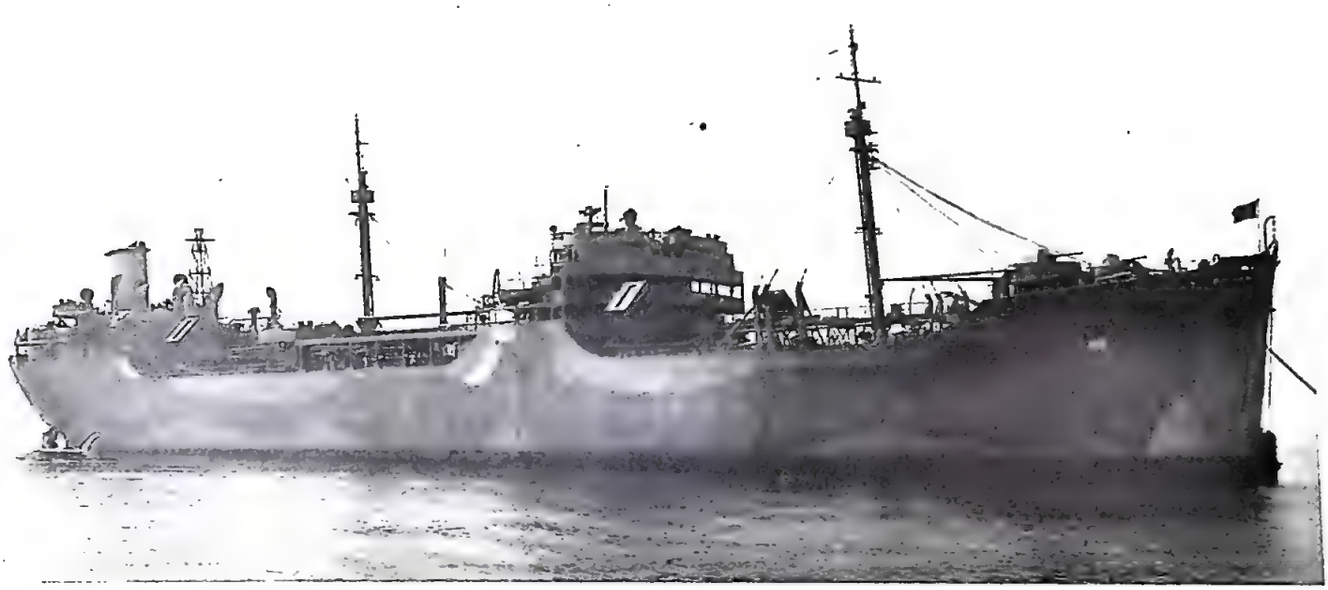


Cimarron (T3-SE-A1)



Stanvac Melbourne, Aekay, Esso Albany II

Figure 1: Body plans for the above vessels show many similarities even though the *Cimarron* was equipped with twin screws. Developed from the Shipping Board Bureau's original T2 design, the hull form of the *Cimarron* is thought to have influenced Sun's later designs, including those for the *Stanvac Melbourne*, *Esso Albany II*, and *Aekay*.



Suamico, shown here in October 1942, was one of the first T2-SE-A1 tankers built by Sun. Laid down as yard no. 244, she was launched on 5 May 1942 as the *Harlem Heights* and acquired by the Navy in the following month. Note the lack of parabolic sheer and the straight bow, visual characteristics which distinguish the T2-SE-A1 type from her progenitors. Photo courtesy of the National Archives, Washington, D. C.

Plans for the new ship were immediately drawn up by the Commission's technical staff so that construction contracts for the new ships could be issued quickly. The vessel was designated as the T2-SE-A1 type tanker. Orders for the first seventy-two ships were formally placed on 27 May 1941.[61] Two additional changes would be made before the T2-SE-A1 design was finalized. One involved the elimination of the so called "clipper bow," a highly visible feature characteristic of the antecedents built by Sun. Straightening the bow was most likely done to facilitate fabrication, especially in light of the large number of ships which the Maritime Commission planned to build. The second design change resulted in an enlarged engine room which was extended by three feet to accommodate the turbo-electric plant and added three feet to the length of the vessel. Both revisions were made on 19 June 1941.[62]

The lead ship of this new class, MC hull no. 316, was launched as *Gettysburg*. Completed in February 1942, she was purchased by Standard Oil (New Jersey) and renamed *Esso Gettysburg*.[63] The ship made sixteen voyages before she was torpedoed and sunk on 9 June 1943. *Esso Gettysburg* was the first of 198 T2-SE-A1 tankers which were built at the Sun yard during World War II. Three other Maritime Commission yards — Alabama Drydock and Shipbuilding Company in Mobile, Alabama; the Swan Island Yard of the Kaiser Company in Portland, Oregon; and the Marinship yard in Sausalito, California — also constructed vessels of this type.[64] During the course of the war, these four yards produced a total of 481 T2-SE-A1 tankers as well as forty-three of the T2-SE-A2 and one T2-SE-A3, the latter being a 10,000 SHP version built exclusively by Marinship.[65]

61. USMC hull nos. 316-387 (Sun yard nos. 241-312). Apparently eighteen separate contracts of four vessels each were issued. This was probably done to facilitate payment for work in process and/or subsequent price changes and adjustments. File 506-8-2, Box 7098, MARAD, RG 178. See also *Marine Engineering and Shipping Review* (January 1942): 99-100, table 2.

It appears that plans for MC hulls no. 306-315, originally intended as Sun built C2 cargo ships, were converted into T2-SE-A1s on this date, thus committing Sun to tanker construction only (a policy which made sense in light of Sun's work load). See *Marine Engineering and Shipping Review* (May 1941): 120.

62. T2-SE-A1 General Arrangement & Inboard Profile. U.S. Maritime Commission Drawing No. T2-SE-A1-S9-1 (Alt. 2).

63. Standard Oil Company (New Jersey), *Ships of the Esso Fleet in World War II* (1946), 454.

64. Alabama completed 102, Kaiser Swan Island 147, and Marinship 33 of the T2-SE-A1 versions.

65. Fassett, *The Shipbuilding Business in the United States of America* 1: 92, table 19; Richard Finnie, ed., *Marinship: The History of a Wartime Shipyard* (San Francisco: Marinship Corporation, 1947), 393. The T3-SE-A3 was a navalized version of the T2-SE-A2.

Table 3
Evolution of the T2-SE-A1 Design

Ship Name	*Stanvac Melbourne*	*Esso Albany II*	*Aekay*	*Esso Gettysburg* T2-SE-A1
Date Delivered	June 1941	November 1941	February 1942	February 1942
Hull Characteristics[66]				
Length, overall	520′ 0″	520′ 0″	520′ 0″	523′ 6″
Length, between perpendiculars	500′ 0″	500′ 0″	500′ 0″	503′ 0″
Breadth, molded	68′ 0″	68′ 0″	68′ 0″	68′ 0″
Depth, molded	37′ 0″	37′ 0″	37′ 0″	39′ 3″
Draft, molded	29′ 11 5/8″	30′ 1/4″	30′ 1/2″	30′ 1 1/4″
Displacement, f.l. (tons)	21,800	21,825	21,840	21,880
Deadweight (tons)	16,725	16,640	16,444	16,771
Machinery Particulars				
Shaft Horsepower (maximum continuous)	4,400	9,900	12,800	7,240
Design speed, knots	13.00	15.50	16.50	14.50
Trial speed, knots	14.10	16.85	17.56	15.85
Type	Geared-turbine	Geared-turbine	Geared-turbine	Turbo-electric
Construction				
Bulkheads	Corrugated	Flat	Flat	Corrugated
Welding used	80%	80%	85%	100%

The cooperation between the Maritime Commission, the Navy, and the country's private shipbuilding industry resulted in a remarkable class of vessels which were able to meet the urgent need for large numbers of tankers during World War II. Although the U.S. lost 136 tankers during the course of the war (one-third of the merchant tonnage it started with), the U.S. Merchant Marine finished the war with 907 tankers.[67] To a large extent, this remarkable achievement can be attributed to the success of the T2 design and the emergency shipbuilding program. At war's end, surviving T2s comprised 60 percent of the entire nation's tanker tonnage and would dominate the world's tanker fleet in the immediate postwar era.

66. All of the foregoing, *except* the *Gettysburg*, had the same underwater form. See n. 50.

67. R. Goralski and R. L. Freeburg, *Oil and War* (New York: William Morrow and Company, 1987), 340-42.

Thomas Wildenberg has recently completed a comprehensive study of the design, development, and procurement history of fleet oilers acquired by the U.S. Navy in World War II. His interest in oilers of this period resulted from the discovery of original Maritime Commission drawings for the T3-S2-A1 Cimarron *Class tankers in the collection of the American Merchant Marine Museum at King Point, New York. Wildenberg works in the field of industrial marketing and holds both a BSME and an MBA.*

Descriptions of the Shallop in Western Europe and the New World, 1587-1671

JOSEPH M. HERBERT

In the first decades of exploration in North America, the ship's boat was the primary means of ship-to-shore communication, anchoring, towing, and inland navigation. As exploratory efforts and colonial enterprises expanded, vessels larger than the ship's boat were needed for transporting passengers and cargo on both inland and coastal waters. Functional considerations required that these vessels be shoal draft, easily beached and stable when loaded, small enough to manage well under oar, yet large enough to haul a proper load. Easily adapted to sail, their rigs were required to be versatile and handy to stow. The vessel described was known as a *shallop*, and by the middle of the eighteenth century she was indisputably the work horse of the colonial American maritime economy.

Most present-day reproductions of seventeenth-century shallops follow a similar pattern of design and construction. Often they are round-bilged, double-ended designs, carvel-planked over sawn frames. They are usually constructed in a frame-first fashion with planking proceeding from garboard to sheer over a full set of frames which are securely fastened to the keel above and a rigid strong back below. In contrast, many documentary sources from the seventeenth and eighteenth centuries describe a variety of vessel designs, many of which have flat bottoms and lapstrake hull planking. Construction seems often to have proceeded with the vessel right side up in a mixed form of shell-first, carvel planking below the water line and lapstrake, topside planking above. Heavy central planks were often substituted for keels with frames added only as planking required. Often, frames were not fastened to the keel or, as in the case of futtocks, not attached to an adjacent floor frame. Archaeological data gathered from small vessels of this period that have been recovered in Eastern North America seems to confirm this pattern. Thus, an examination of both the documentary and archaeological record from the sixteenth and seventeenth centuries is necessary to determine just what was meant by the term "shallop."

The term originally referred to a large ship's boat, exhibiting regional variation in design, construction method, and vessel function. The term apparently derives from the Dutch *sloep*, as do the Swedish *slup*, French *chaloupe*, Spanish *chalupa*, Italian *scialuppa*, and German *chaluppe*. Many variations have appeared in English, including *schalop*, *sallop*, *shallop*, *shallup*, *shawlopp*, *shalop*, *shalupe*, *shaloupe*, *shalloup*, and *shalloop*.[1]

The etymology of the term is problematical. The word's Germanic origin, its Romance cognates, and its many English variations create ambiguity about the vessel it describes. On one hand, the similarity of the term in so many languages encourages the belief that it applies universally to a specific vessel type. On the other, the myriad English forms suggest variability in design and construction of a vessel which might better be understood as a class of similar designs.

One encounters ambiguity when attempting a functional definition as well. Working craft often represent highly efficient ensembles of elements which form

This article began as a practical research problem initiated by Al Lavish, George Surgent, and members of the Patuxent Small Craft Guild at the Calvert Marine Museum in Solomons, Maryland, who were interested in building a flat-bottomed reproduction of the vessel used by John Smith in his explorations of the Chesapeake Bay in 1607. The notion that a reproduction of a seventeenth-century shallop not only could but should have a flat bottom seemed, at first, nothing short of heretical. The research reported here, I believe, demonstrates the soundness of their thinking. I should like to thank Mr. J. Richard Steffy for editorial assistance in the preparation of this article, and the Texas A&M University Library, The Mariners' Museum, and the Library of Congress for access to original manuscripts. I am also indebted to Ms. Caecilia Holthuysen of the Texas A & M University Office of International Coordination for assistance with Dutch translations; responsibility for the French is entirely my own.

1. R. W. Burchfield, ed., *The Oxford English Dictionary*, vol. 9 (Oxford: The Clarendon Press, 1961), 614.

sophisticated tools, well-suited for particular tasks and environments. Contemporary working craft, such as the English *coble*, remain an active part of the fishing industry precisely because the functional elements of their design have evolved in response to the needs of the watermen working in specific environments.[2] Similar continuity of functional design elements occurred in the evolution of multi-log canoes and *bugeyes* into the traditional work-boats of the Chesapeake Bay area.[3] This gradual evolution of functional elements would seem to reflect a class of vessel with a relatively homogeneous design.

The practical constraints of a wide range of environmental and technological conditions also introduced considerable variability in shallop design and construction. Colonial American records are brimming with accounts of vessels built under much less than ideal circumstances, where compromises in design and construction were the rule rather than the exception. It is evident, then, that a working definition of the term shallop must refer to a class of vessels whose design was influenced to some extent by both normative and disruptive factors.

Early Descriptions

The Spanish and Basque

Although there are several references to shallops which occur prior to the first explicit written definitions, it is useful to begin with these definitions as a point of departure. The earliest marine dictionary is Dr. Diego Garcia de Palacio's *Instruction Nauthica* of 1587. Here, an informative passage is devoted to the discussion of the longboat and the shallop:

> Any ship has need of a long-boat, and a shallop also, for its service: whether for setting an anchor, or for recovering it; for loading and unloading cargo; for towing, for entering and leaving of any port, bay, or channel, or in a calm; and because, being near another ship, or some shoal, the long-boat could be employed to protect [one's ship] from such. The long-boat is to be of a length that might easily fit in between the quarter-deck and the after end of the fore-castle, which will be sixteen cubits, according to our calculation, six in width, and two and a half feet in depth, and it is to have thwarts, allowing a cubit and a half for each thwart, besides the dead-risings at the stem and bow which are to be two and a half cubits, so that a space of ten cubits will remain for lading the boat, and with seven thwarts. And because long-boats have the greatest natural force at the bow, the sheave is to be made fast in the bow, and windlass in the stern, for hoisting. The shallop will be three-quarters of the long-boat in length and width, and it will come to be twelve cubits in length and four and a half of beam, but it is to be much lighter, although strong, and has thwarts according to the form for the long-boat. And because the shallop is more burdened at the stern, the windlass and tackle will be placed in the bow, contrary to that in the long-boat, and as for the hands and feet so necessary to the ship, much care ought to be taken with both parts, in their handling, and a good watch kept.[4]

The cubit linear measure seems to have originated in Egypt around 3,000 B.C. and is based on the length of the arm from elbow to the tip of extended fingers. It became a ubiquitous measure in the ancient world, now usually converted to eighteen inches (45.7 centimeters). Based on this conversion, the long-boat described had a length of twenty-four feet (7.25 meters), beam of nine feet (2.75 meters), and a depth of two and one-half feet (.75 meters), with three feet nine inches (1.25 meters) of sheer in the bow, the same amount in the stern, and about twenty-two inches (fifty-six centimeters) between the thwarts.

The actual profile of the vessel is left largely to our imagination, but Garcia's dimensions definitely describe a broad open boat of low freeboard, with primary attention given to hull form, rowing stations, cargo stowage, and windlass and sheave locations. His reference to this last aspect specifically states that the longboat was more bluff in the bow, and the shallop fuller in the stern. If so, this distinction may be unique to the Spanish shallop of this period.

William Baker's research into the origin of the shallop suggests that the Spanish *chalupa* evolved from a Basque vessel of the same name.[5] The idea that the Basque or Biscay chalupa was recognized as a distinctive type is

2. H. Oliver Hill, "The English Cobel: A Monograph Based on the Journals of the Late Commander H. Oliver Hill, Royal Navy," *Maritime Monographs and Reports*, no. 30, ed. J. E. G. McKee (London: Trustees of the National Maritime Museum, 1978); Eric McKee, *Working Boats of Britain: Their Shape and Purpose* (London: Conway Maritime Press, 1983).

3. M. V. Brewington, *Chesapeake Bay Log Canoes and Bugeyes* (Centreville, MD: Tidewater Publishers, 1963).

4. J. Bankston, ed., *Nautical Instruction: A.D. 1587 by Diego Garcia de Palacio* (Bisbee, AZ: Terrenate Associates, 1988).

5. William A. Baker, *Colonial Vessels, Some Seventeenth-Century Sailing Craft* (Barre, MA: Barre Publishing Company, 1962); *Sloops and Shallops* (Columbia, SC: University of South Carolina Press, 1966); *The Mayflower and Other Colonial Vessels* (Annapolis: Naval Institute Press, 1983); "Notes on a Shallop," *The American Neptune* 17, no. 2 (April 1957): 105-113.

supported by two accounts from Bartholomew Gosnold's exploratory voyage along the New England coast in 1602. A description attributed to Gabriel Archer records that "From the said Rocke, came towards us a Biscay shallop with saile and Oares, having eight persons in it . . . these with a piece of Chalke described the Coast thereabouts, and could name Placentia of the New-found-land."[6] A crew member, John Breton, referred to the same craft as a "Biscay shallop." These descriptions suggest that the vessel was distinctive, that it was manned by at least eight oarsmen with accommodations for sail, and that it was capable of voyaging the Atlantic from Newfoundland to New England.

The recent archaeological recovery of small open boats associated with an early sixteenth-century Basque whaling station in Red Bay, Labrador, have greatly expanded the evidence for Basque *batels*, chalupas, and *pinazas* in the New World.[7] Archaeologist Robert Grenier describes the remains of three distinctive small open boats recovered in close proximity to a Basque whaling galleon which is thought to have been lost in 1565. The largest of these best reflects the shallop.

This vessel is variously referred to as a pinaza, batel, or chalupa. It is represented by floor timbers, futtocks, and planks which extended over thirty-six feet (eleven meters) along the bottom. Each of the vessels exemplifies a similar construction method. The lower portion of the hull is carvel-planked, while the topsides, above the turn of the bilge, are lapstraked. A foremast is stepped on the stem and the mainmast is positioned amidships, suggesting a square-rigged system. Grenier states that this vessel probably served in coastal fishing and as a support vessel for the larger whaling ships.

The best-preserved and documented of the smaller vessels from the Red Bay excavations is a whaleboat, or chalupa. Although similarities in the planking system and double-ended hulls are shared by the pinaza and the chalupa, the latter is especially designed for speed under oar. There is also evidence of a single mast amidships.

The term chalupa appears to have been applied to the three types of small, open craft discovered at Red Bay. If, as Baker suggests, "the Biscay shallop was the parent from which the other variations developed," then the evidence from Red Bay provides an interesting variety of types included in the class known as shallops. Certainly the chalupa represents a specialized vessel type which might be thought of as a distant cousin to the colonial shallop.

The Dutch

Dutch records and illustrations constitute a valuable source of information on the form and construction of early shallops. One of the most important is Nicolaes Witsen's *Aeloude en Hedendaagsche Scheeps-Bouw en Bestier* (1671). Witsen provides detailed specifications for numerous shallop-like small vessels. The following descriptive passage provides one example:

> A shallop from stempost to sternpost is 42 feet;[8] the breadth is 9 feet; its flat bottom is 7 feet and in the center between the sheer-rail and the bottom, the hold is 2 feet. The rest of the hold between the bottom and the sheer-rail is 3 1/2 feet. The stempost, which has a height of 5 1/4 feet, curves and drops an additional 6 1/2 feet. The sternpost is 5 1/4 feet and drops 2 feet.
>
> The transom is 6 feet. The sheer at the bow is 1 3/4 feet and 2 1/2 feet at the stern.
>
> The floor timbers are 3 inches thick, and 3 1/2 inches in width. The lower futtocks are 3 inches thick; the rising line of the floor timbers is 2 1/2 inches and is planked with wainscot.
>
> The diagram of this shallop is illustrated in five unusual ways.
>
> Around the shallop, right below the mainrail, cleats hold heavy ropes.
>
> Today, the advantage of having a flat bottomed boat is that you can set it on dry ground and when so set, is also prevented from turning over or falling on its side. The older shallops have had a lot of problems with just that because they were sharp edged [round bilged] and not flat. The stempost is rounded at the top to minimize damage while out to sea.
>
> Shallops which are used for fishing near Greenland are long, lightly constructed, narrow and sleek. They are rowed by many oars.
>
> Forward at the stem there is a sheave over which fits a rope to pull up the fish which are caught.
>
> The bottom of the shallop on the outside is smoothed and painted white.

6. Samuel Purchase, *Hakluytus Posthumus, or Purchase His Piligrimes in Twenty Volumes*, vol. 18 (Glasgow: Glasgow University Press, 1906).

7. Robert Grenier, "Excavating a 400-year-old Basque Galleon," *National Geographic* 168, no. 1 (1985): 58-68, and "Basque Whalers in the New World: The Red Bay Wrecks," in George Bass, ed., *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology* (New York: Thames and Hudson, 1988), 69-84; Robson Senior, "Red Bay: Unique Site Tells of Basque Whaling," *Journal of Canadian Conservation Institute* 4 (1980): 40-46.

8. The units of measure given in these seventeenth-century descriptions translate as "feet" and "inches," and although the exact dimensions may not correspond precisely to our modern units, they are expected to be very similar.

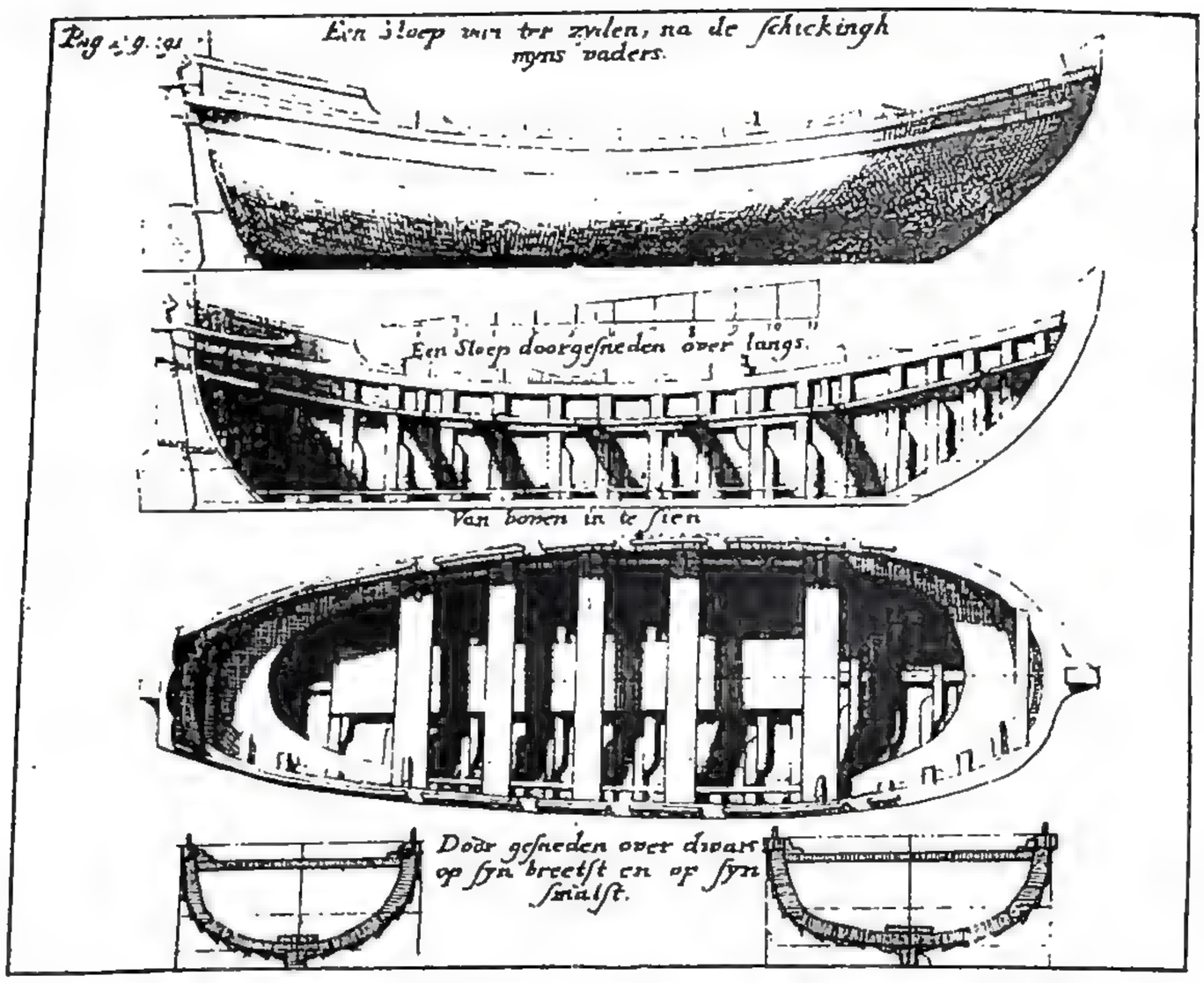


Figure 1: Three views of a shallop as illustrated in Nicolaes Witsen's *Aeloude en Hedendaagsche Scheeps-Bouw en Bestier*, 1671.

> Whenever shallops and other vessels were built, the planks were forced into shape by wrapping rags around them.
>
> They used rags instead of clamps.[9]

These dimensions are for a vessel much longer and narrower than that described by Garcia. The length-to-width ratio of this vessel is 4.66:1, while Garcia's shallop is 2.66:1. Witsen's description seems to have a flat bottom *(zyn vlak)*, a transom stern *(het hek)*, and is clinker-built *(met wagen-schot beshooten)*.

Figure 1 above illustrates the vessel to which this description refers and is entitled, *"Een Sloep van ter zyden, na de Schickingh myns vaders,"* or "Side view of a shallop according to my father's measurements."[10] Although the actual dimensions of the boat pictured are not those of the vessel described, this representation does indicate lapstrake planking, a transomed stern, and a low, wide (although not altogether flat) cross section.

The top view shows the maximum breadth occurring about a third the distance from the stem, making it much fuller forward than aft, as suggested for Garcia's shallop. It has a keel which is about four inches (10.16 centimeters) wide (sided) and six inches (15.24 centimeters) thick (molded) amidships, and a little wider and less thick aft. Five thwarts are shown, of which the center three are removable. Oarlocks are provided as spaces between a segmented wash strake, and a continuous washrail is provided aft, around the stern seat. The ceilings provide the internal, longitudinal strength of a keelson over much of its length. A pair of masts, apparently square-rigged, is clearly described in the text, though no provisions for mast steps are illustrated.

Figure 2 (opposite) illustrates two vessels which were also included in the class of vessel Witsen referred to as the shallop. The *egmonder pink* is shown as a clinker-built, open boat, very full in both bow and stern, with a flat bottom and keel planks rather than a true keel. A single, very light mast is stepped amidships.[11]

The *veer-schip* is shown as a very stout vessel, full both fore and aft. It is of carvel construction with four heavy wales, a massive rudder, and leeboards. It is completely decked and has a central cabin which includes a

9. Nicolaes Witsen, *Architectura Navalis et Regimen Nauticum ofte Aeloude en Hedendaagsche Scheeps-Bouw en Bestier*, 1671 (Amsterdam: Casparus Commelijn, Broer en Jan Appelaer, 1940), 173.

10. Ibid., 179.

11. Ibid. Dimensional specifications for the egmonder pink appear on pp. 167-168, plate LXII.

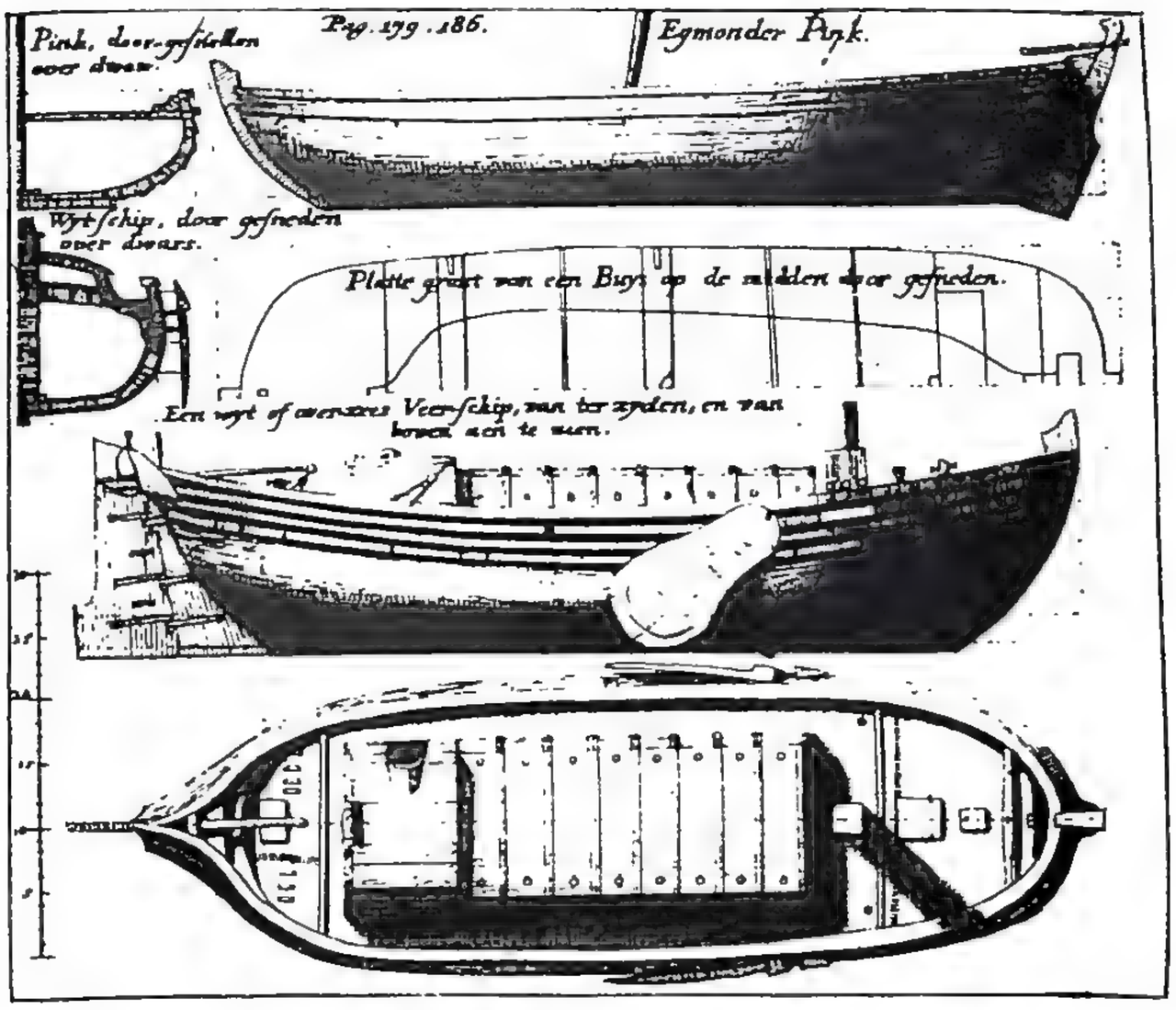


Figure 2: Views of the egmonder pink (top) and veer-schip (center and bottom), also illustrated in Witsen, 1671.

chimney for the galley. A single large mast is stepped about one third the length from the bow.

The *kaag*, illustrated in figure 3 on page 172, is an open boat with a simple cuddy cabin aft. It exhibits much narrower breadths at the stem and stern. The almost straight stempost, reminiscent of the medieval *cog*, provides a much finer entrance than the pink or the veer-schip. This vessel is fitted with leeboards and a single heavy mast carrying a sprit rig, stepped about one-third the length from the bow. The cross section indicates a carvel-planked bottom with no keel and clinker-planked topsides.[12]

The *weyschuyt* appears to be a rowing vessel. Its stem and sternposts are straight and strongly raked and its freeboard is quite low. Like the kaag, it appears to have a carvel-planked, flat bottom and lapstraked sides. The *boot* is similarly planked and has a flat bottom, but, like the pink and veer-schip, it is extremely full in the bow and stern. Its thwarts and ceilings are very similar to the *sloep* described, while the mainmast is located amidships with foremast just aft of the stempost.[13]

In these illustrations, Witsen seems to have set out to demonstrate the range of variation in hull shape, secondary structures, and rigs which are included in this group of small craft. It is important to recognize, however, that the size range and general shape of the hulls are similar, and that all of the cross sections depict vessels with flat, or nearly flat, bottoms. The associated text extols the virtues of the flat-bottomed design and clearly indicates that this was a recent contemporary trend.

The French

Not knowing of the Red Bay shallops in 1966, William Baker prophetically sought the origin of the Biscay shallop through the *barcaza* of Cadiz and *barca longa* of Spain and France. He cites the dimensions for a typical *barque longue*, from F. Dassie's *L'Architecture Navale* (1677), as forty feet (12.25 meters) from stem to stern, nine feet (2.75 meters) in breadth, and four and one-half feet (1.5 meters) in depth.[14]

The barcaza is also described in Nicolas Aubin's 1702 *Dictionnaire de Marine* as an undecked boat with high stem and relatively fine entrance, measuring between thirty and forty feet (nine to twelve meters) in length, eight to

12. Ibid., 174.

13. Ibid. Witsen provides illustrations and dimensions for the *weyschuyt* (p. 171, plate LXV) and the *kaag* (p. 174, plate LXIX).

14. F. Dassie, *L'Architecture Navale Contenant La Maniere de Construire les Navaires, Galeres & Chaloupes & la Definition de plusiers autres especes de Vaisseaux* (Paris: Jean De La Caille, 1677).

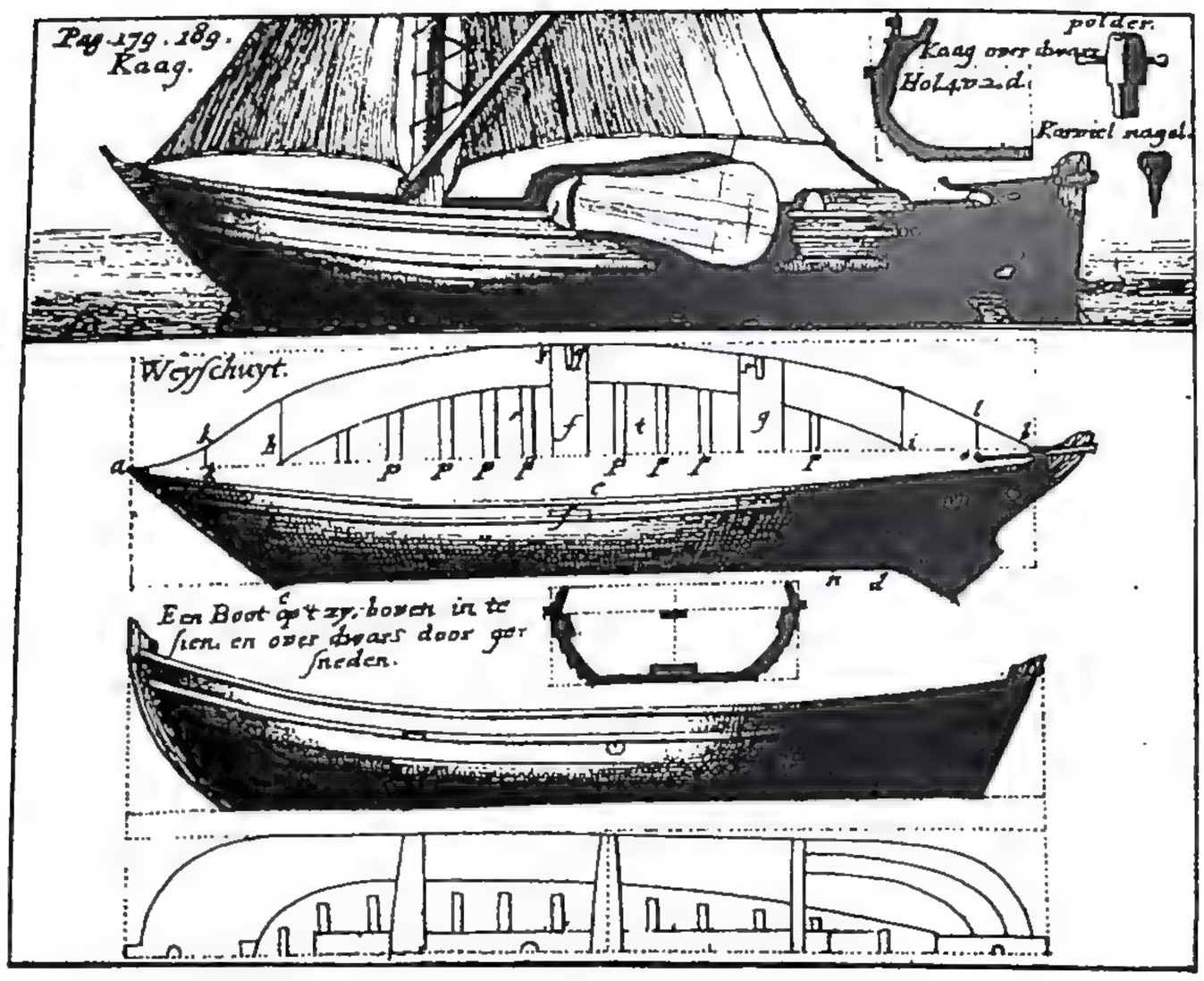


Figure 3: Witsen's illustrations of the kaag (top), weyschuyt (center), and boot (bottom).

nine feet (2.5 to three meters) in breadth, and about five feet (1.5 meters) in depth.[15] Additional information indicates that the vessel was rowed with seven to eight oars per side and was square-rigged, with a mainsail stepped amidships and a foremast and small, square sail stepped at the stem.

The proportions of these vessels suggest that they may be more like the larger pinaza or batel found at Red Bay, rather than the chalupa. Further association of the barque longue with the shallop appears in the *Dictionaire du Gentilhomme* by Sieur Guillet (1686), where it is described as a "small undecked vessel, longer and shallower than ordinary barques, with a sharp bow, which is propelled by sail and oars. It has the form of a shallop and in some places is called a double-shallop."[16]

Aubin also gives a description of the chaloupe, cross-listed as sloep, chaloep, or boot. The passage is translated as follows:

> This is a seagoing vessel, designed for service and communication of large ships or for use in making short crossings; although there are also some which make longer ones, even voyages of long distances. Each chaloupe is designed for the service of large vessels, it is usually equipped with three seamen, the helmsman, who steers, the fore-man, who pulls the forwardmost oar, and the stevedore, who pulls the middle oar, and ordinarily a quarter master who commands.[17]

Aubin further provides technical descriptions of the dimensions of shallops, which he quotes from uncited sources:

> Seagoing vessels are provided with a chaloupe, and if they must make sufficiently long voyages, they are joined by a canot. Each of these small boats has its particular purpose. The chaloupe, among other things, is used to carry the kedge anchor when it must be dropped, to carry on board munitions and ballast, and a few other heavy things. The canot is used for boarding other ships, and one or the other is used to save men and cargo in case of shipwreck or some other misfortune at sea. Chaloupes are ordinarily made as long as the width of the ship they must serve, unless the ships' beams are not more than a quarter of

15. Nicolas Aubin, *Dictionnaire de Marine Contenant les Termes de la Navigation et de l'Architecture Navale* (Amsterdam: P. Brunel, 1702), 182-185.

16. Georges Guillet de St. Georges, *The Gentleman's Dictionary In Three Parts* (London: Printed for H. Bonwicke, 1705), 182.

17. Aubin, *Dictionnaire de Marine*, 182.

their length: in this case, the chaloupe has a little more length than the ships' width; so that properly speaking, the chaloupe must have a length of a quarter of the ship. It is a little wider than a quarter of its length; and it has a depth of hold, measured at the height, at the top of the wale, a little less than half of its width.

At the front of the chaloupe there is a block, or a sheave, for hauling the anchor, and when there is a need, a capstan is set amidships, which is secured by the means of two knees, which are on each side, in the place that supports them. The floor timbers which are on the bottom are covered by planks which are not secured, but provide a place where the water which enters is drawn up, and the space emptied.[18]

Although not cited by Aubin, what follows is a quote from Witsen describing the *"Certer van een Boot":*

Here is a description of a chaloupe 32 feet long, from stempost to sternpost, and 8 feet 9 inches wide. The bottom [sole, or flat bottom?] must be 25 feet 5 1/2 inches long, 5 feet 3 inches wide, and 2 inches thick. The floor timbers are 3 inches wide [sided] and 2 thick [molded] and 1 foot 5 1/2 inches from one another.

The stempost must be 6 feet 5 inches high, and have 4 feet 9 inches of rake [deadrise], with 13 inches width at the top, 10 inches at the base, with 4 inches of thickness inside, and 3 inches outside for the base.

The sternpost should have 5 feet 9 inches of height, 1 foot 6 inches of rake, 2 feet of width [molded] in the base and 1 foot in the height; 7 1/2 inches thick [sided] inside and 1/2 inches outside.

The chaloupe should have 2 feet 3 inches of hold, taken from the bottom of its sheer-rail; and be 8 feet 9 inches wide, to measure from the same place [amidships?]. The cleat or block for the leeboard ought to be 11 feet from the bow at which place she should have 3 feet and 1/2 inch of hold and 8 feet 2 1/2 inches of width. At the forward crossbeam she must have 7 feet 8 inches of width and 3 feet 1 inch of hold; and to measure 1/2 foot from the stem, she must have 6 feet 6 inches of hold.

The forward crossbeam must be 8 inches wide and 3 inches thick and be 8 feet from the outside of the stempost.

The clamp [in this case, a thwart supporting the windlass] must be 12 1/2 inches wide and 1/4 inch thick. The windlass is 1/2 feet from the middle of the boat, toward the stern, positioned in the clamp. The thwart which supports the mast is 3 inches thick, 1/2 feet in width, and 13 inches at the ends, having 1/4 round in front, to its end. The hole where the mast enters must be 6 1/2 inches wide and 6 inches deep; and the hole for the foot of the mast, 4 1/2 inches; the planks of the mast partner are an inch thick.

The carling [keelson] should be 18 inches wide in the middle, and 12 inches in its after end, with 2 inches of thickness. It should have 18 floor frames and an after block, making 19 in all. There is an iron bolt for each floorframe, which passes through the sheer-rail. The lock or ring, which is at the stem, and which serves to haul the chaloupe on board, must have 7 1/2 inches of width or diameter.

The wale must be 6 inches wide in its middle, and 4 inches thick; 2 1/2 inches wide at the stern, and 3 inches thick, and a little more at the bow, where it has 2 feet of relief, and 2 1/2 at the stern. The sheer-rail must be 4 inches wide and 3 inches thick. The shelf clamp is an inch thick, and is 2 1/2 inches wide between the floors aft, and 3 1/4 inches at the middle.

There must be 7 tholepins, 5 behind the midships thwart or thwart which supports the mast, and 2 forward. The distance between the two sides, where the tholepins are must be 7 inches. At the side of the leeboard block, which looks forward, it must have a cramp iron or hook, to which the shrouds are made fast. The lower gudgeons which are at the stempost must be attached to a foot of the heel of the keel, and the higher gudgeon must be attached to 13 inches of the head of the stempost.

In order to construct chaloupes, and other similar small boats, one uses small posts which are stuck in the ground, so as to spring the planks together, without having recourse to vise clamps. Holes are made in the bottom of chaloupes in order to empty the water when they are made fast on the stocks and the holes are bunged when one wants to put to sea.[19]

In the following description Aubin quotes the dimensions of the forty-two-foot Witsen sloep translated above. Aubin's description differs in several interesting details which may reflect differences in the French method of construction, but more likely results from the transmogrification of technical terms from Witsen's Dutch to Aubin's French, or from Aubin's French to modern English. Several points presented by Aubin are omitted by Witsen.

Here is another description. A shallop 42 feet long, must have 9 feet of beam and its bottom 7; having 2 feet of hold under the waist-rail, and 3 1/2 feet in the rest. The stempost must have 5 1/4 feet of height and 6 1/2 feet of rake. The sternpost must also have 5 1/4 feet and 2 feet of rake. The transom must be 6 feet long.

18. Ibid., 183.

19. Witsen, *Architectura Navalis*, 173.

> The chaloupe must have 1/4 feet of sheer in the bow, and 2 1/4 feet in the stern. The floor timbers must be 3 1/2 inches wide and 3 inches thick. The lower futtocks must be 3 inches thick, and have 2 inches of relief in the rising line of the floor timbers. She must be planked with clench-work.
>
> The mainmast must be 24 feet long, the yard must be 12 1/2 feet; the sail, 21 feet of depth; the foremast 15 1/2 feet long; the yard, 11 feet; and sail, 10 1/2 feet deep.
>
> Chaloupes which go to fish in Greenland are long and light, and are of pointed sheer: they are rowed with several oars. There is a small pully [sheave] at the bow, where the line is passed, when the whale has been killed. They are coated with tallow on the undersides, and painted white.

A final quote which Aubin has transcribed from Witsen describes the *"Certer van een Sloep, gegaan na Cabo Verde":*

> Here is the description of a chaloupe built in order to go to the Cape Verde Islands. She is 55 feet long, from stem to stern, 12 1/2 feet abeam, with 6 1/4 feet of hold at the height of the scuppers. The stem is 8 1/2 feet high, and the stern 5 1/4 feet. The wing transom is 5 1/4 feet long. The floortimbers are 5 inches thick from top to bottom, and positioned 9 inches from one another. The futtocks are 3 1/2 inches thick for the height. The sternpost is 9 1/2 feet high, perpendicularly.
>
> The beam of a chaloupe can well be given 7, 8, or 9 feet more than 1/3 of its length; and often the width of the bottom is even 1/3 of the length of the vessel. For every 10 feet of length, one foot of hold is customarily given. They are also given forward, towards the mast partner [thwart], 4 1/2 inches of width and an inch of hold more than in the stern. The sheer-rails at the bow are given 20 inches of sheer from the base, and 1 foot aft joining the sternpost.[20]

Fortunately, many of the more obscure technical terms which appear in Aubin's descriptive text are also defined in his work or may be found in contemporary French and English dictionaries.[21] In addition, the *Dictionnaire de Marine* (1702) was published in Amsterdam, and the Dutch equivalents are listed for many terms. This provides an invaluable source for interpreting the Dutch terms which appear in Witsen. Many of these, no longer in use, pose problems even for Dutch scholars.[22]

It is apparent that many of Aubin's descriptions originate from Witsen's *Aeloude en Hedendaagse Scheeps-bouw en Bestier* of 1671. The level of detail suggests that these specifications are derived from the construction records of a shipwright, or the measurements of an actual vessel. The dimensions provide the basic specifications needed to develop lines, and other details provide an important source of information on the specific elements in the design of the chaloupe.

The first and smallest (thirty-two feet or 9.75 meters) of the vessels described in the passage was double-ended and flat-bottomed, with a *carlingue* or keelson which extends over about twenty-eight feet (8.5 meters). These features, together with its leeboards, are reminiscent of the egmonder pink and weyschuyt vessels depicted in figure 3, although they refer to Witsen's boot.[23]

The location of the crossbeam, *le traversin*, with cleats for belaying ropes, is problematical, as it is not clear if this is also the forward crossbeam indicated as being eight feet from the stempost. The locations of the amidships frame and mast step are also vague. Since only one mast is described, this was probably not a square-rigged vessel. The fact that the step appears to be set forward of the midships station also suggests a fore-and-aft rig. As noted in Witsen's illustrations, large, spritsail rigs seem to have been common on vessels of this size.

The second vessel, described as forty-two feet (12.8 meters) in length, apparently flat-bottomed, clinker-built, and transom-sterned (figure 1), is almost identical to that presented by Witsen for the sloep.[24] No specifications are given for rowing stations, thwarts, or leeboards, but the dimensions do present the proportions, if not the shape, of the hull. Here again, there is no mention of a keel, and the combination of flat bottom and clench-work planking, *bordée d'esfquain, ou border a quoin*, suggests the kaag or weyschuyt types illustrated in Witsen.

This combination of a carvel-planked, flat bottom and clinker topsides suggests the northern style of hull construction, which A. J. Hoving indicates remained in use for smaller vessels until the end of the wooden shipbuilding era in the Netherlands. He describes the method as follows:

20. See ibid., 192, and Aubin, *Dictionnaire de Marine*, 183-185.

21. See, for example, Claude Desainliens, "A Dictionnaire French and English 1593," in R. C. Alston, ed., *English Linguistics 1500-1800: A Collection of Facsimile Reprints*, no. 231, (London: Scolar Press, 1970), and William Falconer, *An Universal Dictionary of the Marine* (London: T. Cadell, 1776).

22. A. J. Hoving, "A 17th-century Dutch 134-foot *Pinas*, Part I, A Reconstruction after Aeloude en Hedendaagsche Scheeps-Bouw en Bestier by Nicolaes Witsen," *International Journal of Nautical Archaeology and Underwater Exploration* 17, no. 3 (1988): 211-222.

23. Witsen, *Architectura Navalis*, 172, plate LXVI.

24. Ibid., 173.

> . . . after placing the stem and stern on the keel, the whole floor was laid with the help of planking-tongs and chains to pull the planks against each other . . . . During the course of this, everything was clamped together with a large number of wooden clamps. Next, a floor timber was fitted on the *hals* (the widest part of the ship) and provided with a bilge futtock on both sides. Only then was the bilge planked: three or four complete planks, after which the bowl thus obtained was filled up with the still-lacking floor timbers and bilge futtocks. Finally, the futtocks were placed and after the ceiling was made within the ship and the top timbers were placed, the rest of the hull could be planked.[25]

Current research suggests that this building method probably dates back to the medieval period when cogs were being built in this way.

Finally, the third and largest chaloupe described by Aubin as the Cape Verde Chaloupe (corresponding to Witsen's Cabo Verde Sloep[26]) had an overall length of fifty-five feet (16.75 meters), a maximum width of twelve and one-half feet (four meters), and a hold depth amidships of six and one-fourth feet (two meters). This represents the maximum size for a vessel included by Aubin under the definition for shallops. It should be possible to use the proportions given to design a shallop of any specific size.

The English

The first appearance of the English term shallop occurs in 1576 in the account of Christopher Hall, who recorded Martin Frobisher's exploratory voyage in search of the Northwest Passage. In describing Inuit *umiaks*, Hall states that they are ". . . made all of Seales skinnes, with a keele of wood within the skin: the proportion of them is like a Spanish shallop, save only they be flat in the bottom, and sharpe at both ends." Here a sixteenth-century English seaman uses the term shallop to refer to a specific type of round-bottomed, transom-sterned Spanish vessel.

An English description of a shallop from this period appears in Mainwaring's 1644 *The Seaman's Dictionary*.[27] This short reference is listed under the term *bluff* or *bluff headed*, and is as follows:

> The boate belonging to a Ship, is either called the Ships-boate, or the Long-boate, and this is ever intended to be able to carry-forth and waigh her sheate Anchor; other small Boats, which they carry for lightness, to hoyse in and out quickly, are called Skiffes and Shallops, according to their forme. A good long boate will live in any growne sea, if the water be sometimes freed, unless the sea breake very much.[28]

Under the same heading the following also appears:

> A ships-boate, is the very Modell of a Ship, and is built in parts in all things answerable to those which a Ship requires, both for sayling and bearing sayle, and they bare the same names, as doe all the parts of a Ship under water, as, Rake, Run, Stem, Sterne, Bowe, Bildge, etc.[29]

This brief reference suggests that the term shallop was commonly used to refer to a ship's boat. It seems to imply by the statement, "a ships-boate is the Modell of a Ship" that the construction techniques and proportions for a shallop would be the same as for its ship.

William Baker interpreted from Mainwaring and other sources that ". . . the form of the stem determined the basic difference between a skiff and a shallop. . . . The former had a square stem while the latter was a double-ender."[30] Certainly, this would not seem to apply to the French and Dutch vessels just described.

In John Smith's 1627 work entitled *A Sea Grammar*, we find essentially the same passage as that presented by Mainwaring.[31] Philip Barbour suggests in his introduction that although Smith's work was earlier than Mainwaring's, he may have been working from an unpublished draft of the latter. In chapter 6 of *A Sea Grammar*, entitled "What doth belong to the Boats and Skiffe with the definition of all those thirteene Ropes which are only properly called Ropes belonging to a ship and the Boat and their use," Smith adds the following to what he quotes from Mainwaring:

> To a boat belongs a mast and saile, a stay sheet and Halyard, Rudder and Rudder irons, as to a ship, also in any discovery they use a Tarpawling, which is a good piece of Canvas washed overwith Tar, to cover the Bailes or hoops over the stern of their Boat, where

25. Hoving, "A Reconstruction," 211-222.
26. Witsen, *Architectura Navalis*, 192.
27. Sir Henry Mainwaring, "The Seaman's Dictionary," in G. E. Manwaring and W. G. Perrin, eds., *The Life and Works of Sir Henry Mainwaring* (London: The Navy Records Society, 1922). See also R. C. Alston, ed., *English Linguistics 1500-1800: A Collection of Facsimile Reprints* (London: Scolar Press, 1972), no. 328.
28. Mainwaring, "The Seaman's Dictionary," 12.
29. Ibid., 11.
30. Baker, *Sloops and Shallops*, 11.
31. Philip L. Barbour, ed., *The Complete Works of Captain John Smith (1580-1631) in Three Volumes* (Chapel Hill, NC: University of North Carolina Press, 1986), 1:41-43.

> they lodge in an harbour which is that you call a Tilt covered with wadmall (coarse woolen fabric) in your Wherries; or else an Awning, which is but the boats saile, or some peece of an old saile brought over the yard and stay, and boumed out with the boat hooke. . . .

Here Smith specifically includes tarpaulins as necessary provisions for open boats used in exploratory voyages.

Colonial Descriptions

In addition to the foregoing descriptions or definitions of shallops which appeared in print in the late sixteenth and early seventeenth centuries, there are numerous incidental references to shallops in the accounts of exploration and colonization of the New World. The vast majority of these provide little explicit information on the structural details of vessel or rig; however, some give us interesting information on the construction methods and the uses to which these vessels were put. In some cases, details can be inferred from these more general descriptions.

Construction Methods

Accounts of the construction of small vessels variously referred to as *pinnaces*, *shallops*, *light horsemen*, *barks*, *barges*, *brigandines*, and *ship's boats*, or simply *boats*, are scattered among the records of the voyages of exploration and colonization of the Americas. These range from the mere mention of the term to the description of full-scale construction with shipwrights, sawyers, and blacksmiths, and back again to the simple assembly of two sections of a prefabricated shallop.

The exploratory voyage of Captain John Ribault to the coast of Florida in 1562 provides one example. Having been relieved of his ships by mutinous crew members, Ribault ordered the remaining crew to "began to build a smal Pinnesse, with the hope to return into France . . . though there were no man among them that had any skill, notwithstanding necessitie, which is the maistesse of all sciences, taught them the way to build it. After that it was finished . . . they wanted those things that of all other were most needfull, as cordage and sayles, without which the enterprise coulde not come to effect."[32]

Here, as in so many other cases, the explorers turned to the native inhabitants, "who promised them to returne within two dayes, and to bring so much [cordage] as should suffice to furnish the Pinnesse with tackling." Meanwhile, the French "sought all meanes to recover rosen in the woodes, wherein they cut the Pine trees round about, out of which they drew sufficient reasonable quantity to bray the vessel. Also they gathered a kind of mosse which groweth on trees of this countrey, to serve to calke the same withall. There now wanted nothing but sayles, which they made of their own shirtes and of their sheets."[33] In the course of this description, the vessel is variously referred to as a small pinnesse, bark, and brigandine. Such passages offer few construction details, but demonstrate the ability of sixteenth-century explorers to construct serviceable vessels under extreme duress.

By comparison, the French explorer René Laudonniere brought with him a variety of craftsmen, including two Flemish shipwrights. When met with similar mutinous theft of his barks and ship's boat, Laudonniere reports: "I commanded my Carpenters with all diligence to make a little boate with a flat bottome. . . . The boate dispatched within a day and a night, by reason that my carpenters found planks and timber ready sawed to their hands, as commonly I caused my Sawyers to provide it." Later he adds: "I determined to cause two great Barkes to be built, eche of which might be thirtie five, or thirtie sixe foote long in the keele."[34]

After a second seditious appropriation of these new barks, Laudonniere ordered the construction of yet another, saying: "I set my Carpenters to worke to make another barke of the same bignesse that the others were of: I commanded of the Sawyers that they should prepare the plancks, the Smithes to prepare yron and nails, and certaine others to make coales: so that the barke was finished in fifteene dayes. Afterword I made another lesser then the first, the better to discover up the river."[35]

After some time, and facing starvation, Laudonniere determined to abandon Florida in the bark just built:

> ". . . but because the ship was not bigge enough to receive us all, some thought good to build up the Brigandine two decks higher [than the existing deck?] . . . and that 25 men should hazzard themselves to passe therein into France. The rest being better advised said that it should be farre better to build a fair shippe upon the keele of the Galiote, which I caused to be made . . . I gave charge . . . to goe with a barke a league off from the fort to cut downe trees fit to make

32. Richard Hakluyt, *The Principal Navigations, Voyages, Traffiques & Discoveries of the English Nation*, 12 vols. (Glasgow: Glasgow University Press, 1904), 3: 483.

33. Ibid., 483-484.
34. Ibid., 9: 38-39.
35. Ibid., 9: 48-49.

> plankes, and to cause the sawiers which he carried with him to saw them: and to . . . cause fifteene or sixteene men to labor in making coales: and to . . . gather a sorte of rosen to bray the vessels . . ."[36]

These few examples indicate that small companies of New World explorers were capable of building small open boats and even larger decked vessels. Among those who came prepared for colonization or extensive exploration were usually shipwrights, carpenters, coopers, and blacksmiths — craftsmen with the skills necessary for constructing vessels adequate for transatlantic passage. Another solution to the problem was to bring prefabricated boats. The stages of prefabrication or completion of these vessels varied from fully assembled sections to loose timbers and planks, or *chaloupes en fagot*. In the account of James Rosier (1605) we have the following description:

> About foure a clocke, after we were ankered and well mored, our Captaine with halfe a dozen of our Company went on shore to seeke fresh watering, and a convenient place to set together a pinnesse, which we brought in pieces out of England: both of which we found very fitting.
>
> Whitsun-munday, the 20 day of May, very early in the morning our captaine caused the pieces of the pinnese to be carried a shore, where while some were busied about her, others digged welles to receive the fresh water . . . .
>
> The next day . . . we cut yards, waste trees, and many necessaries for our ship. while our Carpenter and Cooper laboured to fit and furnish forth the shallop. . . . We pulled off much Gumme congealed on the outside of the barke which smelled like frankencense. This would be a great benefit for making Tarrs and Pitch.
>
> Wednesday, the 29 day, our shallop being finished, and . . . furnished to depart . . . .[37]

This vessel, carried as cargo *en fagot*, required only nine days to assemble. By comparison, the shallop used by John Smith in his exploratory voyages around the Chesapeake Bay was assembled from pieces in approximately eighteen days.[38] Although not explicitly stated, the "pieces" of Smith's vessel probably included the keel, possibly sectioned, with stem and stern assemblies, floortimbers, futtocks, planks, wales, thwarts, mast and yards, rudder and tiller, fastenings, sails, and rigging. Undoubtedly, all the pieces were numbered or identified somehow, including, it would seem, the frame stations on the keel. Holes for the forelock bolts may even have been bored prior to shipping. Even with such preparation, the complete assembly and launching of a vessel in only eighteen days seems remarkable.

It was also common for shallops to be sectioned, or cut into sections for shipboard stowage. The shallop transported in the *Mayflower* to Plymouth in 1620 is an example of a sectioned boat. *Mourt's Relation* notes that:

> Monday, 13 November, we unshipped our shallop and drew her on land to mend and repair her, having been forced to cut her down in bestowing her betwixt the decks, and she was much opened with people lying in her, which kept us long there, for it was sixteen or seventeen days before the carpenter had finished her.[39]

We know also that Captain Newport brought to Jamestown what he referred to as a "five-pieced" barge.[40] Ralph Lane also used a shallop in Roanoke which "could be carried in sections on shipboard."[41]

One of the few archaeological examples of a shallop, in addition to those recovered at the Red Bay site, is the wreck from Hart's Cove, Newcastle, New Hampshire. This vessel measured thirty feet, three inches (9.25 meters) on her keel with a maximum beam of twelve feet (3.75 meters), and a hold of approximately four feet (1.25 meters). Only the lower portion of the starboard hull planking was preserved. A keelson was found with a mortised mast step just aft of amidships. This evidence suggests that there may also have been a small foremast, both being square-rigged.[42]

A careful inspection of the planks and timbers provides evidence that the hull was constructed in the frame-first manner, but that the sequence of framing and planking went on simultaneously. Apparently, the floor timbers were set up before planking the bottom. The lower

36. Ibid., 9: 60-61.

37. James Rosier, "A True Relation of the Most Prosperous Voyage Made this Present Yeere 1605," *Discovery of the Land of Virginia*, in George Waymouth, ed., *March of America Facsimile*, series 17 (Ann Arbor: University Microfilms, Inc., 1966).

38. Barbour, *Complete Works* 1:135.

39. G. Mourt, "A Relation or Journall of the Beginning and Proceedings of the English Plantation Settled at Plimoth, in New England," in William Bradford and Edward Wilson, eds., *Mourt's Relation or Journal of the Plantation at Plymouth* (New York: Garrett Press, Inc., 1969), 11-12.

40. Barbour, Philip L., ed., *Jamestown Voyages Under the First Charter (1606-1609)*, 2 vols. (Cambridge: Cambridge University Press, 1969), 2:410.

41. David Beers Quinn, ed., *The Roanoke Voyages (1584-1590)*, vol. 1 (London: The Hakluyt Society, 1955), 271.

42. Maritime Archaeological and Historical Research Institute, "Hart's Cove 1987," *MAHRI Newsletter* 4, no. 2 (1987).

Table 1: A Comparison of the Dimensions of Shallops

Source	Length	Beam	Depth	Stem Height	Stern	L/W Ratio
Spanish/Basque:						
Garcia	24′	9′	2′ 6″	3′ 9″	3′ 9″	2.66:1
Dutch and French:						
Witsen	32′	8′ 9″	3′ 6″	6′ 5″	5′ 9″	3.65:1
Aubin	42′	9′	3′ 6″	5′ 3″	5′ 3″	4.66:1
	55′	12′ 6″	6′ 3″	8′ 3″	5′ 3″	4.4:1
Colonial American						
Hart's Cove	30′ 3″	12′	4′	—	—	2.52:1

futtocks were then installed and secured by ceiling planks. Additional hull planks were then added around the turn of the bilge, and these were followed by more ceiling planks. Further futtocks, hull planks, and ceiling planks were added to complete the hull.[43]

The Hart's Cove shallop also showed evidence of having undergone a great deal of repair work. Several frames were found to be scavenged from other vessels, and several hull plank patches were noted. The hull was covered with pitch and horsehair, and sheathed with pine furring. Although references to sheathing larger vessels is common in the historical accounts, this is the first evidence for sheathing small, open craft such as a shallop.

Another archaeological example of a small colonial lapstrake vessel dating to the late seventeenth or early eighteenth century is the Lyon's Creek boat. Fragments of planking, frames, gunwale, stringer, and possibly keel were recovered in dredge spoil from a tributary of the Patuxent River in Maryland in 1974.[44] Robert Neyland's analysis of these remains indicate that pit-sawn planking was fastened with iron rivets in the shell-first manner, then hand-hewn frames were trimmed in step-like fashion on the outboard face and attached to the inner hull with oak treenails.[45] The fourteen strakes which composed the hull formed an arc-shaped bottom with upright sides. The broadest breadth of the reconstructed frame sections indicate a maximum breadth of 173 centimeters with a depth of eighty centimeters. Together with the thin planking, these dimensions suggest a small, lightweight boat, the overall length of which was unknown. The frame sections were neither fastened to one another nor to the keel. This system of framing, and the evidence for a series of plank refits, lead Neyland to speculate that this might represent a vessel which was transported *en fagot* with the upper planks and frame sections added after arrival.

Conclusion

The vessel which came to be known as the shallop evolved from a variety of sources, among which the Basque chalupa, French chaloupe, Spanish chalupa, Dutch sloep, and English shallop were most important. Definitions of the term shallop which appeared in print as

43. David C. Switzer, "An Example of a Carvel Constructed Colonial American Shallop-type Vessel," paper delivered at the Fifth International Symposium on Boat and Ship Archaeology, Amsterdam, The Netherlands (September, 1988).

44. Ralph Eshelman and Don Shomette, "On a Possible Seventeenth Century Small Craft Wreck, Lyons Creek, Calvert County Maryland," in A. Albright, ed., *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference* (1987), 71-76.

45. Robert Neyland, "The Lyons Creek Boat Remains," in Toni Carrell, ed., *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference* (1990), 116-119.

early as 1587 and contemporary archaeological evidence indicate that the shallop was an open boat which ranged in length from about thirty feet or nine meters[46] to fifty-five feet or seventeen meters.[47]

The Dutch commonly built shallops with carvel-planked, flat bottoms and clinker topsides,[48] and archaeological evidence indicates that the Basque whaling chalupas of 1565 were also carvel-planked below the waterline and lapstraked above.[49] There is no conclusive evidence to suggest that the Dutch vessels evolved from the Basque or vice versa.

The colonial American shallop recovered in Hart's Cove, New Hampshire, was carvel-planked and built with an alternating sequence of frame-first construction.[50] The Dutch construction method sometimes employed a similar mixed type of assembly of bottom planking first, followed by the installation of floor timbers, then further planking.[51] The Lyon's Creek boat, however, was built in the shell-first manner with frames added after the hull planks were fastened to one another. There is evidence in the early documents for both double-ended and transom-sterned vessels.

Although no specific description of the British method of construction of small open craft has come to light, it is not at all unlikely that a frame-first, carvel-planked system was employed in England by the beginning of the seventeenth century. The construction of prefabricated vessels may have used a frame-first method, although a system such as that implemented by the Dutch or the shell-first system exemplified by the Lyon's Creek boat may have been used on the knocked-down types designed for shipping.

There seems to be a universal absence of evidence in historical accounts from the New World for decked shallops; however, Dutch illustrations from the mid-seventeenth century illustrate such vessels.[52] The most common rig seems to have been either the two-masted square rig, with the mainmast just aft of amidships and the foremast at the bow, or the sprit rig, with the mast stepped about a third of the length from the bow. By the eighteenth century, gaff-rigs, lug-rigs, and sloop-rigs were probably common alternatives.[53]

The use of leeboards seems to have originated with the Dutch, but there is no reason to suspect that it was restricted to Northern Europe. Dutch fishing and whaling expeditions, the Dutch colony at New Amsterdam, and the employment of Dutch shipwrights on exploratory voyages in the New World would have provided ample opportunity for the spread of such an effective, functional feature for shoal-draft vessels.

This preliminary study suggests the depth and breadth of material which is available for research into the origins of the vessel which came to be known as the shallop. It is possible to produce the lines of a shallop from the dimensions given by Aubin, but critical details are lacking for the development of full construction drawings. Undoubtedly, there is a wealth of information on shallops from late seventeenth- and eighteenth-century sources which has not been reported here, and certainly, the rich sediments of the inland waters of eastern North America hold untold numbers of archaeological specimens which await our discovery.

46. "Hart's Cove 1987," *MAHRI Newsletter* 4, no. 2 (1987).

47. Aubin, *Dictionnaire de Marine*, and Witsen, *Architectura Navalis*.

48. Witsen, *Architectura Navalis*, 167-174.

49. Grenier, "Basque Galleon," 58-68, and "Red Bay Wrecks," 69-84.

50. "Hart's Cove 1987," *MAHRI Newsletter* 4, no. 2 (1987).

51. Hoving, "A Reconstruction," 211-222.

52. Witsen, *Architectura Navalis*, 173.

53. Baker, *Sloops and Shallops*, 11.

Joseph Herbert is an archaeologist with the Planning and Environmental Branch of the North Carolina Department of Transportation. He is a Ph. D. candidate in anthropology at the University of Tennessee, Knoxville, and he pursued graduate studies at the Institute for Nautical Archaeology at Texas A & M University. His most recent research efforts are concentrated on the prehistory of Tidewater Maryland, and he is currently preparing two monographs describing archaeological excavations conducted for the Maryland Historical Trust. He is an active volunteer with the Calvert Marine Museum's Small Craft Guild and an avid student of colonial American maritime history.

Autonomy, Politics, and Embargo in New London, Connecticut, 1807-1809

GLENN S. GORDINIER

The decade following the American Revolution found New London, Connecticut struggling to heal itself. The wartime raid led by Benedict Arnold had destroyed the heart of the seaport and resulted in the exodus of a number of its most prosperous citizens. Economic conditions did not improve significantly until New London's "horse jockeys" began to market quantities of local livestock in the West Indies. The growth of this trade was largely a result of America's involvement as a neutral carrier for the Caribbean colonies of Europe's two great belligerents, France and England. As the 1790s advanced, so too did the fortunes of New London. Prosperity was finally within reach.

In spite of all this, the turn of the nineteenth century found the business community of New London in a black humor. There was good reason for this state of affairs. It was not so much the struggle back from hard times, however, that caused the gnashing of teeth along the banks of the Thames River. It was politics. More precisely, it was the election of Thomas Jefferson to the presidency. For New London was a hotbed of Federalist partisanship within the nation's most partisan Federalist state. The incoming Republican administration, with its southern and western power base, its Francophilism, its egalitarian tendencies, and its "atheistic" leader, was anathema to the Congregational elites of Connecticut's Standing Order.

Even after the Republicans came to power in the nation's capital, however, New London's merchants continued to prosper as neutral traders. This good fortune increased until December of 1807 when, in response to the repeated seizures of American flag vessels, Congress approved Jefferson's policy of embargo which utterly and immediately stopped all foreign trade.

At the outset, the terms of the embargo were quite straightforward. The act prohibited all American vessels from clearing for a foreign port, while foreign vessels in American ports were forced to depart immediately with whatever cargo was aboard at the time. Coastwise trade was permissible only if a vessel and its cargo were bonded for twice their value. Four supplementary acts were passed during the fourteen months before the embargo was rescinded in an effort to make the interdiction balanced and more enforceable.

Like many other maritime entrepreneurs, the Connecticut Yankees in New London sought to evade the embargo as soon as they learned of its existence. Word of the new law reached New London several days after it went into effect on 22 December. It appears that it took some time to close the harbor because, on 27 December, eleven sloops and schooners departed the Thames River, bound for the West Indies.[1] These vessels were most likely escaping the embargo; such a large number of clearings from the port of New London in one day was unprecedented.

The *Connecticut Gazette*, a Federalist newspaper published in New London, provides evidence that the embargo was exceedingly unpopular locally. The *Gazette* included information about the embargo in virtually every issue from the time of the law's enactment until it was rescinded fourteen months later.[2] There is little doubt that George Hall, editor of the *Gazette*, and his Federalist associates growled heartily about the new national policy.

The responsibility for enforcing the embargo fell upon the federal Customs Service, and as a designated port of entry, New London possessed the required personnel to carry out that enforcement. Heading the cadre of local officials was the district Customs Collector, General Jedidiah Huntington. He was assisted by the U.S. attorney, who would prosecute offenders, and the federal marshal, who enforced the court's edicts.

1. "Marine Journal," *Connecticut Gazette*, 30 December 1807.
2. *Connecticut Gazette*, 30 December 1807 - 8 March 1809.

More immediately, Huntington relied on his "surveyors," assistants who represented him on the waterfronts of the customs district. There were several of these surveyors because there were a number of waterfronts within Huntington's purview; the New London district included the northern coast of Long Island Sound from south of Middletown on the Connecticut River all the way east to the Rhode Island border. The plethora of coves, inlets, and rivers along this eastern section of Connecticut's coast made enforcement difficult. (Eventually, U.S. naval vessels cruising Long Island Sound assisted Huntington as well.)

Under the direction of the collector and his surveyors were numerous hirelings. The crew of the district revenue cutter, boatmen, inspectors, gaugers, weighers, and measurers were all placemen whose allegiance was directed to the customs collector.[3] The collector could also reward informers who reported on illicit activities discovered along the coast. During the embargo, these private citizens could be motivated by a sense of public duty, party loyalty, or the share of the profits that they would earn if a vessel was condemned for breaking the embargo.[4]

As was the case elsewhere, the key to a successful embargo of the New London district was vigilance. Along the coast, the revenue cutter and roving navy cruisers kept a weather eye out for vessels trying to evade the authorities. Along the shore, a watch was kept on landings, wharves, and inlets as much as possible. If a vessel tried to depart the district without clearing through the Customshouse (actually a second story walk-up office on "the bank" in New London), it could be overhauled and seized. Such unauthorized departures could be penalized heavily with the vessel and its cargo being forfeited.

At the center of this whole operation was Jedidiah Huntington himself. His credentials were undeniably impressive. As the scion of one of the most influential merchant families of Norwich, Connecticut, he was a member of the elite. At the time of the Revolution, he married and then became the widower of Connecticut Governor Jonathan Trumbull's daughter. Although a member of the Standing Order (the group of influential families that directed the spiritual, economic, and political fortunes of the colony and state of Connecticut for generations), Huntington was a thorough patriot. He had even gone as far as to associate with the "middling sort" as a member of the Sons of Liberty. With the outbreak of hostilities in 1775, he led local troops to join the colonials surrounding Boston. During the war, he served bravely and with distinction, rising to the rank of general and becoming a friend and confidant of Washington. Following the war, Huntington became a founder of the Society of the Cincinnati, an influential supporter of Constitutional ratification, a member the Connecticut State Senate, and the Sheriff of New London County. In 1789 President Washington asked his old friend to serve as customs collector for New London. General Huntington was to hold that position for the next twenty-six years.[5]

As a member of the Standing Order, a hero of the Revolution, and a political activist, Jedidiah Huntington emerged as a leading figure in New London County politics. He reigned for many years as the *de facto* party boss for the local Federalists. This status was enhanced by Huntington's position as the collector of customs. Throughout the country, collectors had great political leverage because of the prestige of their position, the size of their incomes, and the deference paid to them. Moreover, the collectors had great influence because they were able to offer people governmental appointments. The company of placemen that resulted gave the local customs collectors control of one of the nation's first political organizations.[6]

Over the years there were a number of examples of Federalist collectors allowing partisan politics to influence the operation of their office. In Boston, General Benjamin Lincoln, another Revolutionary War hero and Washington appointee, had dozens of underlings working for him as customs inspectors, weighers, gaugers, and so on. Only one of these men was a Republican, all the rest were loyal Federalists. In Philadelphia, Republican merchants complained that the Federalist collector treated his political allies with favoritism; similar complaints were heard from merchants in Dighton, Massachusetts.[7]

What of Jedidiah Huntington? In *The Federalists and the Origins of the U.S. Civil Service*, Carl Prince states that the partisan application of a collector's power was part of Huntington's mode of operation. In Huntington, Prince sees the confluence of the Congregational establishment and the business and political elite that so typified Connecticut's Standing Order. As a deacon of the

3. Carl E. Prince, *The Federalists and the Origins of the U.S. Civil Service* (New York: New York University Press, 1977), 14.

4. Israel I. Rubin, "New York and the Long Embargo" (Ph.D. diss., New York University, 1961), 83.

5. Prince, *Origins*, 67-68; *Dictionary of American Biography*, ed. Dumas Malone, vol. 9 (New York: Charles Scribner's Sons, 1932), 416.

6. Prince, *Origins*, 15.

7. Ibid., 16.

General Jedidiah Huntington, customs collector for the port of New London from 1789 to 1815. Photo courtesy of Mystic Seaport Museum.

Congregational Church in New London, president of the powerful Union Bank, political power broker, and member of a successful West Indian merchant family, Huntington exemplified all that made generations of the elite so powerful.[8] The continuity created by this plutocracy brought to Connecticut the appellation "Land of Steady Habits."

8. Ibid., 67-69.

Huntington's great power seems to have influenced the way in which he ran his port. As was the case in other ports, politically dissenting shopkeepers and merchants sometimes found it difficult to clear their goods through customs in New London. Huntington also used his influence to affect elections, for although the Republican newspaper had been driven out of town after a bitter struggle in 1802, the Federalist organ remained healthy — it was published from the Customshouse offices each week. This, according to Prince, was "partisanship at its

rankest." Prince stated that Huntington "ruled like a feudal lord over the customshouse and practically everything else in New London." Huntington, said Prince, "engaged the office (of collector) politically like a surgeon's scalpel . . . [and] utterly dominated Federalist interests in town."[9]

How then did Huntington, an opposition party partisan who was responsible for enforcing the embargo, perform his duties? Put simply, the evidence suggests that he did his duty as he saw fit. It seems that one could say the same for many government officials, past and present. Yet the freedom of choice implied here had particular meaning for Huntington and other collectors of his day. There were a number of verities that influenced Huntington's management of the embargo; by considering them it is possible to highlight two underlying characteristics of the customs service during the early national period: administrative autonomy and political power.

There can be no question that Huntington's friends and relatives dominated the local political, spiritual, and mercantile realms. One certainly might suspect the commitment of a man whose family and friends relied on foreign trade for their livelihood. It was these friends who stood to lose the most if the embargo was vigorously pursued. For instance, like many other merchants along the coast, Huntington's own son maintained his foreign trade connections during the embargo.[10]

If Huntington succumbed to pressure from his local community, he would certainly not have been the first. Some collectors did not fulfill their duties for fear of local reprisals or loss of popularity.[11] A number of them received reprimands from the Treasury Department for lack of diligence while others, like the collector on New York's Lake Champlain and the one in New Bedford, were dismissed for "want of energy" or outright collusion.[12]

The way in which Huntington oversaw some of the shipping affairs in New London seems unusual. One example is his handling of shipping activities on Fisher's Island. Located just two miles off the Connecticut coast, Fisher's Island was a perfect place from which to smuggle goods. One would assume that such a place required special attention from the collector of customs, but a visit to Fisher's Island by John Palmer, Huntington's aggressive surveyor from the port of Stonington, proved the opposite to be the case.

Upon meeting Captain Thomas Allen, the tenant who ran the island's affairs, Palmer was told brusquely to go back to the mainland. If the surveyor had any questions, Allen said, he should ask his boss. Allen further informed Palmer that he had (after posting a single bond) been given permission by Huntington to move goods between the island and New London without making further application to the Customshouse.[13] In effect Allen had been given freedom to trade in and out of a port of entry at will without verification from any governmental agent. This arrangement flew in the face of the embargo and the supplementary acts that stiffened its enforcement.

D. H. Deering, the collector for Sag Harbor, wrote directly to Palmer saying that he would be willing to send an inspector to keep watch over the island if Palmer could suggest a good man. Meanwhile, David Gelston, the collector for New York, suggested that all could be well on Fisher's Island if Huntington, through the use of his revenue cutter, would demonstrate "a proper exercise of the powers of the Collector."[14]

Huntington's view of this situation was that Fisher's Island, as a part of New York State, belonged to the district of Sag Harbor. Yet Huntington took it upon himself to allow Thomas Allen open access to his New London wharves. This strange arrangement aside, there was even some question as to which collector should have jurisdiction on the island. A number of letters passed back and forth in an effort to determine which collector should be responsible, New York's, New London's, or Sag Harbor's.[15]

The episode which raises the greatest suspicion regarding Huntington's enforcement of the embargo has to do with the "permission ships" of 1808. These were vessels which were given special permission to depart American ports in ballast to pick up cargoes that had been purchased before the trade interdiction had taken effect. Ship owners could apply to the customs collector for permission to make these voyages.

Between 26 April and 11 August 1808, Huntington endorsed forty-three manifests for departing "permission" ships.[16] When compared to some other shipping statistics,

9. Ibid., 67-70.

10. Joshua Huntington to Jedidiah Huntington, 9 July, 12 October 1808, Correspondence, New London Customs District, Federal Records Center, Waltham, Massachusetts (hereafter cited as Correspondence).

11. Leonard D. White, *The Jeffersonians: A Study in Administrative History* (New York: The Macmillan Company, 1951), 454; Rubin, "New York and the Long Embargo," 121.

12. White, *Jeffersonians*, 454.

13. John Palmer to Jedidiah Huntington, 10 May 1808, Correspondence.

14. David Gelston to Albert Gallatin, 28 December 1801, David Gelston Papers, G. W. Blunt White Library, Mystic Seaport Museum.

15. Palmer to Huntington, 28 November 1808, Correspondence.

16. Manifests for Vessels Clearing for Foreign Ports, New London Customs District, Federal Records Center, Waltham, Massachusetts.

this is an extraordinarily high number for a port the size of New London. For instance, the forty-three permission vessels equal 34.4 percent of the 125 foreign clearances from New London during the boom year of 1807.[17] By way of comparison, in the port of Boston, eighty-two permission ships, or 12.3 percent of the 664 foreign departures of 1807 were cleared during the embargo.[18] In relative terms, Jedidiah Huntington allowed nearly three times as many of his local vessels to escape the embargo as did his old Revolutionary War comrade and fellow Federalist, Benjamin Lincoln.

These numbers take on even greater meaning when compared to the size of the nation's foreign fleet in 1808.[19] During that year of embargo, Boston's vessels registered as part of the foreign fleet equaled 11.5 percent of the national total. Meanwhile, General Lincoln permitted 13.8 percent of the nation's 594 permission ships to depart Boston. The number of vessels registered for foreign trade in New London accounted for only .76 percent of the nation's total, yet the forty-three Huntington endorsed vessels equaled 7.24 percent of the nation's permission departures.

Moreover, New London's foreign traders were almost exclusively brigs, sloops, and schooners, all vessels of limited size and tonnage. Thus, their impact on the tonnage of the fleet per vessel would be minimal. But even with that fact in mind, Huntington's handling of the permission ships was most unusual. At best, Huntington seems to have been free and easy with his permissions. At worst, one could suspect an effort to evade the spirit, if not the letter, of the embargo.

What of Huntington's other activities during the embargo? Although evidence is relatively sparse, it is possible to come to some understanding of Huntington's efforts in his district. The general did create and foster a spreading network of inspectors and informers throughout the customs district during the embargo. Letters from Ezra Lee, the surveyor from Lyme, and John Palmer in Stonington show that an ongoing effort to observe and interrupt illicit trade was maintained. Lee, for example, reported in December of 1808 that a quantity of cotton had mysteriously appeared in his precinct. Several days later he had been roused in the middle of the night by informers who reported that armed vessels had arrived off the coast for the purpose of taking off the cotton. Lee then dispatched a "patriotic militia captain" and some of his men to guard the cotton. The darkened vessels consequently slipped away without disturbing the goods on shore.[20] Four days later, however, Lee reported that the storehouse in which the cotton had been secured had been forcibly entered during the night. The cotton was gone, and by daylight there was no sign of the contraband bales or the vessels that were suspected of having spirited them away.[21]

John Palmer, at the other end of the district, was also busy trying to enforce the embargo. On 4 November 1808, Palmer reported the departure of the schooner *Delight* without proper inspection or clearance. Palmer related how, in the hope of intercepting the missing vessel, he had sent a messenger with instructions to ride all night in order to reach Westerly and then Newport by the next morning.[22]

On 20 December, Palmer wrote again about his frustration regarding vessels that were smuggling out of Stonington. The *White Horse* had already "stolen a march" on him, and *Sophia* was in the process of loading. What if, he asked, the crew became so bold as to say openly that they would sail in defiance of the law? Although he had already assigned the two additional inspectors that Huntington had suggested, Palmer still felt he had "neither the means nor the authority" to stop *Sophia* if she was taken to sea.[23] A week and a half later Palmer wrote that *Sophia* had sailed, and that other vessels were also active in his port. In response, Huntington authorized the hiring of an additional pair of inspectors to try and stop the illicit activity.[24] Palmer seems to have been quite frustrated by his own impotence. Although Huntington allowed Palmer to hire as many men as he deemed necessary, Palmer appears, at times, to have been frustrated with Huntington as well.[25]

At the same time, however, Huntington's peers seem to have been satisfied with his efforts. There were a number of communiques that passed between Huntington

17. "Marine Journal," *Connecticut Gazette*, 1 January 1808 - 31 December 1808.

18. John D. Forbes, "The Port of Boston, 1783-1815" (Ph. D. diss., Harvard University, 1936), table 2.

19. *American State Papers. Documents Legislative and Executive of the United States. Commerce and Navigation*, vol. 7, 3 March 1789 to 3 March 1815 (Washington, D.C.: Gales and Seaton, 1832), 782-784.

20. Ezra Lee to Jedidiah Huntington, 27 December 1808, Correspondence.

21. Lee to Huntington, 31 December 1808, Correspondence.

22. Palmer to Huntington, 4 November 1808, Correspondence.

23. Palmer to Huntington, 20 December 1808, Correspondence.

24. Palmer to Huntington, 31 December 1808, Correspondence.

25. Palmer to Huntington, 10 May, 20 December 1808, Correspondence.

and other federal officials whose jurisdictions bordered Long Island Sound. There is no intimation in these letters to Huntington from his neighboring collectors that they were dissatisfied with his vigilance.[26]

The available evidence makes it difficult to determine just how tightly General Huntington enforced the embargo. As noted above, some of the evidence regarding Huntington's efforts is contradictory. On one hand there is Surveyor Palmer's frustration, the lack of regulation on Fisher's Island, and the large number of permission ships. On the other hand, Huntington maintained a large and active cadre of customs operatives working to try and catch smugglers while other officials communicated with him as a trusted colleague. After looking at all of the material available, however, it is the evidence of omission that is most telling in regard to General Huntington.

The papers of Thomas Jefferson include many communiques from Albert Gallatin, the Secretary of the Treasury and the man responsible for the enforcement of the embargo nationwide. Within Gallatin's letters to his President, there are any number of references to particular customs collectors. These men were mentioned to Jefferson only if they behaved extraordinarily, by being exceedingly strict or by failing to be strict enough. Gallatin reported on collectors who did not close down their ports as required and those who tried to do their duty but were simply overwhelmed by the amount of local smuggling activity. This happened in ports like Barnstable and Passamaquoddy.[27] Other collectors were mentioned because they did an exceptionally good job. Gelston of New York was described as having "nerve and zeal," while Whipple of Portsmouth was almost fanatical in his enforcement of the embargo. Then there were the few who chose not to carry out their responsibilities, like the man in Edgartown who was described by Gallatin as "a bad Collector," and Edward Pope, the collector in New Bedford, who was dismissed altogether.[28]

At no point in the many letters between Gallatin and Jefferson was Jedidiah Huntington's name ever mentioned; rather, his name is conspicuously absent. Although the president and his Secretary of the Treasury corresponded every few days, neither one of them ever saw a need to mention Huntington. There would have been allusions to him, no doubt, if there had been any hint of misconduct. Both Jefferson and Gallatin knew how important it was to have loyal and active collectors. A man's name would be brought up in their correspondence for even the suggestion of impropriety. For instance, David Gelston, the Republican collector at New York who had previously displayed "nerve and zeal" came under suspicion from Jefferson. Gelston's name was brought up because he had not reported improprieties in the nearby port of Perth Amboy, New Jersey. In this case, Jefferson had gone so far as to suggest that Gelston might be suspect because of misconduct in a neighboring district.

Thus, it did not take much to have one's name appear in the letters exchanged between Gallatin and Jefferson, yet Jedidiah Huntington's name was never mentioned. In fact, the only time the port of New London was mentioned at all was when more cutters and cruisers were needed further east to stop smuggling. Jefferson said he approved Gallatin's suggestion to move the cutters from Boston, Portsmouth, and New London.[29]

This lack of comment on Huntington's performance would suggest that his performance did not require comment; he was, in fact, doing his job. After all, Huntington was the man whom George Washington himself had described as "sober, sensible, and very discreet."[30] It was no coincidence that Jedidiah Huntington was worthy of being one of a select handful of men, the nation's original customs collectors. These men had been selected for their integrity in the first place and, on the whole, maintained their reputation for being reliable public servants. Even the Republican president stated that "these officers are the best in the United States."[31]

Jedidiah Huntington was one of a small group of Federalist partisans who were able to keep their posts as collectors during a Republican administration. He may have been like Collector Hodge of Newburyport, "a Federalist who had always done his duty" in spite of his personal opinions.[32]

As previously stated, however, it seems that if Huntington did his duty, he did it as *he* saw fit. The port of New London was his port and he ran it on his own terms. If he was comfortable with allowing selected local vessels to arrive and depart the port without checking in at the Customshouse, then they did so. If he deemed it appropriate to send an inordinate number of vessels to the

26. John Cross to Jedidiah Huntington, 21 December 1808, A. Bishop to Jedidiah Huntington, 13 December 1808, Correspondence; David Gelston to Jedidiah Huntington, 20 March 1809, David Gelston Papers, G. W. Blunt White Library, Mystic Seaport Museum.

27. White, *Jeffersonians*, 447, 454.

28. Ibid., 455.

29. Albert Gallatin to Thomas Jefferson, 28 July 1808, Thomas Jefferson to Albert Gallatin, 12 August 1808, Jefferson Papers.

30. Prince, *Origins*, 69.

31. White, *Jeffersonians*, 161.

32. Ibid., 455.

West Indies during the embargo, then he did. Jedidiah Huntington acted autonomously, making his own rules as he enforced the rules of others.

Why was Huntington able to act with this autonomy? First, the early customs service did not have the systems of check and verification that exist today. The collectors only communicated with the administration through circulars or letters. There were no traveling inspectors, nor were there meetings between the collectors and their immediate superior, Albert Gallatin. Distance, time, and the difficulty of traveling left the customs collectors free to handle their respective ports at their discretion. Even political opponents of the administration might continue to serve in their home ports, as long as they did so within certain parameters.[33]

Carl Prince posits that the Republicans allowed Huntington a great deal of latitude because of his years of service during the Revolution. His moderation during the nation's early years, particularly as he worked in support of Constitutional ratification, had given Huntington a reputation as a tolerant politician long after he had, in fact, ceased to be tolerant.[34] Prince suggests that Jefferson and Gallatin were not aware of his growing partisanship, so they kept him on as collector of customs until his retirement.

A better explanation of Huntington's longevity might be found by considering the political milieu of Huntington's Connecticut. As a member of the Standing Order, and as the heir to political power in New London, Huntington was in an ideal position to carry out his collector's duties as he chose. In Jedidiah Huntington we see a staunch Federalist securely ensconced in one of the most partisan communities of Connecticut, a state that had protected its elites from political attack for generations. (Jefferson had learned this well enough when the merchants of New Haven had remonstrated over the removal of that port's Federalist collector in 1801.) Unless he failed to enforce the embargo altogether, the old General was simply too powerful a figure to be moved aside.

33. Ibid., 156.
34. Prince, *Origins*, 72.

In the final analysis, however, the power and longevity of New London's collector of customs almost did not matter. By the time of the embargo, Federalist patroons like Jedidiah Huntington were becoming political anachronisms, a species from a past era. With the election of Thomas Jefferson seven years before, the tide had begun to ebb for Huntington and his associates; the tide of egalitarianism was on the flood. The machinations of the "old order" notwithstanding, the Federalist party in the Land of Steady Habits would eventually be inundated by the relentless rise of democracy.

If the period of embargo was crucial in the history of New London, the year of 1818, which came a full decade later, proved to be absolutely pivotal. For 1818 was the year in which the old finally passed away, and change touched the whole community. It was the year New London's superannuated West Indies trade, which had been irrevocably damaged by the embargo of 1807-1809, was finally laid to rest — the following year would see the rejuvenation of New London's future through whaling. It was also the year of the "Revolution of 1818" in which the political grip of the Standing Order was finally broken with the ratification of Connecticut's new Republican-backed state constitution. Lastly, it was the year in which New London's greatest hero of the American Revolution passed on. General Jedidiah Huntington died on 25 September.[35] With his death an era had passed, and no longer would New London be considered one man's personal demesne. The age of administrative autonomy and political might along New London's waterfront had come to an end.

35. *Dictionary of American Biography* 9: 416.

Glenn S. Gordinier received his master's degree in American history at Lehigh University and is currently a Ph.D. candidate in the same field at the University of Connecticut. He serves as Research Associate at Mystic Seaport Museum and resides in Stonington, Connecticut.

The China Trade Brig *John Gilpin*

THOMAS HOLLYDAY

The early decades of the nineteenth century were a period of growth for the American merchant marine, especially in the China trade. Americans could and did design and construct ships competitive for the trade, and there was a good market in the young United States for Chinese products. The large three-masted clipper ships that came to symbolize the China trade were not developed until later in the century. Instead, master carpenters in the ports of the eastern United States, especially in the Chesapeake Bay region, used a proven brig design developed from the earlier sharp models of the War of 1812.[1]

Few brigs of the period were as representative of these fast sailors in the China trade as was the brig *John Gilpin*. In keeping with the common shipbuilding practices of the era, she was the product of a small tidewater creek shipyard. Her owners were some of the leading entrepreneurial China traders of the period. The brig had a well-deserved reputation among the China trade masters for her speed, which was documented for modern historians due to her participation in the famous Maury weather logs.[2] Finally, in a lawsuit waged after she was wrecked in New York harbor, the treatment of her salvagers became part of the history of United States Admiralty law.[3]

Limited information exists regarding the construction of this brig. Her keel may have been laid in one of the small tidewater creeks, such as Broad Creek or Oak Creek, near St. Michaels, Talbot County, on the Eastern Shore of Maryland. There were approximately eight shipyards operating in the area at the time, and two large shipyard owners, Thomas Kemp of Claiborne, Maryland and Colonel Perry Spencer of St. Michaels and Easton, Maryland, were large enough shipbuilders to have undertaken the construction of a brig the size of the *John Gilpin*. Such shipyard owners usually worked with master carpenters, most of whom came over from Fells Point in Baltimore to an Eastern Shore location such as St. Michaels near inexpensive rural labor and plentiful timber. The carpenters built brigs or schooners either on speculation or to the order of a vessel's financial partners, who were often located in the market centers of Philadelphia and Baltimore.[4]

A contemporary newspaper article describes the activity at one of the Chesapeake Bay yards that produced vessels like the *John Gilpin:*

> On Saturday evening, the 23rd of November [1805] was launched in Broad Creek, the elegant and substantially built ship *Hope*, burthen nearly 400 tons. We assert (and our assertion is grounded upon the opinion of correct judges) that this ship was never equalled in

The author wishes to thank the following persons for their outstanding interest and assistance in the research and preparation of this article: Daniel R. Finamore of the Peabody Museum of Salem; Paul Tecko of Mystic Seaport Museum; Frank White and John Curtis of Old Sturbridge Village; Richard A. Levine and his staff at the law offices of Lord, Day and Lord, New York City; Aloha South and John Celardo of the National Archives; John Perry Smith of Oceanstar Systems, and Brian J. Harkin of the Social Law Library, Boston.

1. Howard Chapelle, *History of American Sailing Ships* (New York: W. W. Norton, 1935), 294-295. The term "sharp" refers to the design of the brig hulls. The Chesapeake-built sharp brigs, variously known as Baltimore Flyers or Baltimore Clippers, were usually deeper in draft at the stem, with much dead rise, a low freeboard, graceful and knifelike bow lines, and very raked masts. They were designed for speed at the expense of cargo carrying capacity. See also Chapelle, *The Baltimore Clipper* (New York: Bonanza Books, 1930), 108-110.

2. "John Gilpin," The Maury Abstract Logs, Roll 85, Microfilm Publication M1160, National Archives, Washington, D. C., 1981. The logs were named after their compiler, Lieutenant Matthew Fontaine Maury. Participating ship masters reported regular observations of winds and currents to Maury. In return for providing the information, the ship master got the resultant compilation of material in the form of one of Maury's charts.

3. Martin J. Norris, *Benedict on Admiralty* (New York: Matthew Bender, 1990), sections 151 and 152.

4. Conversations, March 1977, between author, Henry Robins Hollyday, and John Earle, local historians in Talbot County. See also R. Hammond Gibson, *Eastern Shore Chips and Shavings* (Easton, MD: Waverly Press, 1970), 16-19, and Dickson Preston and Norman Harrington, *History of Talbot County* (Centreville, MD: Tidewater Publishers, 1983), 173.

> model nor excelled in workmanship, by any ever built upon the Eastern Shore. — It may not be amiss to mention that instead of thirty hands, during twelve months, being necessary for the building of said ship, as was represented by some of the ship carpenters of this county, that she was on the stocks but six months and three days, with fourteen men about one-half the time, and the remaining half, from twenty to twenty-four men, including every person engaged on the ship. (Signed) Harrison and Kemp, Ship Builders, St. Michaels, Talbot Co.[5]

The origin of the vessel's name also remains obscure. A John F. Gilpin lived near Philadelphia with a Vincent Gilpin between 1822 and 1847. They were merchants who might have provided some of the venture capital for the construction of the brig.[6] The original owners are known, however, to have been Captain Matthew Kelly and James Beacham, both of whom lived on Market Street in Baltimore.[7]

The vessel's registration in Baltimore to Kelly and Beacham provides the following facts about her:

> . . . the said Ship . . . was built at St. Michaels State aforesaid [Maryland] in the Year Eighteen Hundred and thirty as appears by the Master Carpenters certificate on file in this Office And James Mosher, Surveyor of this Port having certified that the said Ship or vessel has One deck and Two masts and that her length is One hundred four feet her breadth Twenty five feet ten inches her depth Eleven feet Nine inches and that she measures Two hundred Eighty two and 73/95 tons, that she is a Brig has a Square Stern no Galleries and a Billet head; . . . Given under our Hand and Seals at the Port of Baltimore this Thirtieth day of May in the Year one thousand eight hundred and thirty one.[8]

Additional information about her construction came from testimony given by members of her crew at various times from 1841 to 1845 during the lawsuit over her salvage. Her last captain, Joseph Eyre, testified that she had two cabins and that her sharp or clipper construction made her hull weak. His testimony stated that he "ascertained vessel was bilged, by water starting cargo up and breaking one of beams, next one abaft of main hatch: did not observe anything else started about the deck — cargo would start sooner in that Brig than in ships properly constructed, she was not of a description to bear heavy blow; she was sharp — . . . ."[9] Eyre also indicated that there were at least two hatches and that tackles, saws, carpenters tools, straps, blocks, and falls were on board.[10] Further information came in a description of her cargo hold: "Vessel had been strained so as to jam in cargo in a way to make it difficult to get out boxes. Some were broken in getting them out. Not more than three men could work to advantage in hold at first."[11]

A note about the construction of the hull came from the captain as he described the salvage work at the wreck: "Did not cut the beams in scuttling deck — cut carlins between beams — did this because as goods got wet, goods were so swollen that they could not be got to main hatch . . . ."[12] In his testimony on 20 November 1844, William Atkinson, the underwriter, described the hull as follows:

> "Sunday, noticed prow of vessel had raised up and strained — stanchions fell out or started so they lifted out — goods had greatly swollen, so that there was great difficulty in getting out the goods — starboard side was under water to the rails nearly or quite, and deck was of so steep an angle that it was difficult to walk on it . . . after cargo was a good deal out, looked at her and found she had been a deal strained by

5. *Republican Star,* 26 November 1805, quoted in Oswald Tilghman, *History of Talbot County, Maryland* (Baltimore: Williams and Wilkins Company, 1915), 386-387.

6. *Daybook 1822-1847, Ledger 1822-1847, Daybook 1828-1831,* Vincent and John F. Gilpin of Philadelphia, on file at Historical Society of Philadelphia, were reviewed for author by Ellen Stack of that institution. No mention of the *John Gilpin* was found. The name may have come from a popular contemporary poem by William Cowper entitled "John Gilpin's Ride: The diverting history of John Gilpin, showing how he went farther than he intended, and came home safe again."

7. *Matchett's Baltimore Director,* June 1831 (Baltimore, 1831), 4, 211. Certificate of Registration no. 47, Port of Baltimore, 30 May 1831, Microfilm 15E-3 9/7/A, National Archives, Washington, D. C.

8. Certificate of Registration no. 47. Billet head referred to a simple scroll at the top of the stem of the ship, while fancier finishes would be described as figureheads. Square stern meant a square or flat stern and galleries referred to window work along the stem of the ship.

9. The *John Gilpin*, Federal Case no. 7345, District Court, Southern District of New York, April 1845. Pages not numbered. Charges of libellants, W. Roff and crew and charges of claimants, George Winthrop Gray, Nathaniel L. Griswold, George Griswold, Richard S. Griswold and Richard Alsop. Copy of underwriters accounting by N. L. and G. G. Griswold, copy of Griswold letter on Roff salvage amounts, copy of map of New York harbor showing location of shipwreck, copy of judge's opinion, and copies of following testimony, with dates: John N. Alsop Griswold, 1 July 1842; Hans Hansen Rasmussen, first mate of *John Gilpin*, 14 January 1841, Joseph Eyre, Captain, *John Gilpin*, 14 January 1841; David Hepburn, 1 July 1842; Israel Wood, William Burger, Jacob Van Cleef, Henry Dixon, Franklin Jones, James Morrison, Charles McLean, Washington Fountain, John B. Hatfield, second mate of *John Gilpin*, Patrick Hogan, Elias Butler, Abraham Egbert, James Stilwell, all on 12 November 1844; George Winthrop Gray, Joseph Eyre, Eliphalet B. Rodgers, Joseph Eyre (second time), John B. Hatfield, William H. Wood, Hans Hansen Rasmusssen, Joshua L. Jones, William Atkinson, Isaac Lockman, Silvann Rapelje, 18 November 1844.

10. Federal Case 7345.

11. James Stilwell, Federal Case 7345.

12. Federal Case 7345.

The brig *William H. Stuart*, shown here in an 1858 painting by Edward Arnold, was similar in appearance to sharp Chesapeake brigs like the *John Gilpin*. Photo courtesy of The Felix Kuntz Collection, New Orleans, Louisiana.

> swelling of cargo — but then thought if entirely lightened, she might possibly be got off."[13]

The second mate, John Hatfield, testified on 12 November 1844 that the ship had three boats, one of which was a fishing skiff,[14] and further testimony indicated that the *John Gilpin* carried a crew of eighteen.[15]

No portraits of the *John Gilpin* have turned up to date, but a portrait of a similar vessel, the *William H. Stuart*, shows the appearance of a sharp Chesapeake brig. This brig was built in 1851 in Dorchester County, Maryland, within a few miles of St. Michaels, and likely by some of the same craftsmen who built the *John Gilpin*. While the *Stuart* was smaller and was built later, other facts in their registry descriptions were similar.[16] The rake of the *Stuart*'s masts, the graceful bow, the square stern, and the low freeboard were typical of sharp Chesapeake brigs like the *John Gilpin*.

The *John Gilpin*'s owners were representative of some of the best China trade merchants of the early nineteenth century. From 1832 to 1840 her owner was Richard Alsop of Philadelphia and New York. Alsop conducted his China trade through an association with W. S. Wetmore in Canton.[17] After the ship's return to New York in 1840, Alsop brought in partners and spent $8,000 to refit the vessel.[18] His new partners were George Winthrop Gray,

---

13. Federal Case 7345. Bow and stem sections were inherently weaker in sharp built vessels. See Chapelle, *American Sailing Ships*, 286. Also, the deadweight of the cargo of lead may have increased the Gilpin's troubles.

14. Federal Case 7345.

15. Joseph Eyre, 18 November 1844, Federal Case 7345.

16. *Ship Registers and Enrollments of New Orleans, Louisiana*, Survey of Federal Archives in Louisiana, vol. 5, 1851-1860 (Baton Rouge, LA: Louisiana State University Press, 1942), 274, gives the following information: *William H. Stuart*, brig of New Orleans, built at Dorchester, MD, 1851, 206 90/95 tons, 96 ft. 4 in. x 24 ft. x 10 ft; one deck, two masts, square stem, billet head; previously registered, no. 450, 18 July 1857 at New York City. Registered, no. 83, 17 June 1858, owner Pierre Antoine Giraud, New Orleans, master R. H. Weeks. Registered, no. 128, 7 December 1858, owner Salvador Prats, New Orleans, master Henry Laverty. This data was provided by Paul Tecko of Mystic Seaport Museum. A portrait at the India House in New York of the *Lady Adams*, a sharp Chesapeake brig contemporary with the *John Gilpin*, was kindly researched for the author by Peter Sherwin. The painting did not show enough detail to be useful for this article. A Chinese portrait of the brig *Golden Age*, ca. 1840, built in Norfolk, pictured in M. V. Brewington's *Chesapeake Bay* (New York: Bonanza Books, 1956), 37, may have shown another of these sharp Chesapeake brigs.

17. Walter Barrett, *The Old Merchants* (New York: Carleton, 1863), 293-301.

18. *New York Commercial Advertiser*, 2 January 1841. By way of comparison, Chapelle writes that the cost of a brig slightly smaller than the *John Gilpin* in Newburyport, Massachusetts, in 1845, was $10,765 See Chapelle, *Baltimore Clipper*, 150.

Nathaniel L. Griswold, George Griswold, and Richard S. Griswold of the firm of N. L. and G. G. Griswold, one of the greatest of the China trade companies in New York at that time.[19] The first supercargo listed for the *John Gilpin* was C. Bradford, Esq., who traveled out with her on the first run to Canton from Baltimore.[20] On a later trip she carried W. W. Wood, Esq. from Canton to the Philippines.[21]

Joseph Eyre was named captain of the vessel in December 1840.[22] Eyre had been a ship's carpenter working for his father in Philadelphia. He had gone to sea before he was twenty-one years old. He testified that he was appointed to the command of the *John Gilpin*, his first command, in August 1838, while the brig was actually under another temporary operating command in China. Eyre had to wait for the brig to return to New York before he could take actual command.[23] He was just twenty-nine years old when the brig was wrecked.

Like other vessels in the China trade, the *John Gilpin* was known for her speed. Various authors on the history of American merchant sail have been unanimous in proclaiming her quickness, especially after studying her Maury log entries. Cutler wrote, for example:

> She [the *John Gilpin*] remained in the Pacific for a number of years, trading between Valparaiso and Canton. Her best run during this period appears to have been her passage of fifty-six days and four hours from Callao to Lintin in 1837. On this occasion she left Callao on September 30 at 5 P.M. and anchored at Lintin on the 26th of November at 9 in the evening. This run established a transpacific record which stood until the pre-clipper *Helena*'s fifty-one-day crossing in 1843.
>
> From the time of her departure from Cape Henry in 1832 until her arrival at Canton on December 12, 1839, the *Gilpin* spent 1,443.23 days at sea, logging 228,553 miles, an average of 159 5/100 nautical miles a day, during which time she was frequently becalmed . . . . Nothing more is necessary to show that the Gilpin was very fast.[24]

Fairburn was equally complimentary. "This [the record of the *John Gilpin*] would seem to be not only an exceptional performance for sailing speed in the Thirties," he wrote, "but also considering mileage covered and average speed at sea noteworthy in the complete annals of sail."[25] A contemporary observation of the *John Gilpin*'s speed comes from her original log.[26] It shows, for example, that the *John Gilpin* left the Philippines on her way to Chile on 21 December 1832. By 5 January she had met and likely passed four other ships: the ship *Oneida*, with which she sailed in company on 21 December at 6 P.M., the *Panama* on 31 December, the ship *May* on 4 January, and the brig *Concordia* on 5 January.

In January 1835, the brig was in a race with a British brig, the *Fairy*, in Canton harbor. The *Gilpin* seemed to be faster on one tack than the other:

> It is well known that the merchant vessels of the United States are the fastest that sail the seas; their builders having paid more attention to this most essential quality of a ship than to construct them for the stowage of large cargoes; although we have heard that their skill in ship-building is lately so much improved that the vessels now built in the U.S. and called by way of sobriquet, "Kettle-bottoms," combine great capacity with extreme speed: the ventricle of the elephant with the limbs of the greyhound. However perfect a ship may be in her proportions; although her lines are all lines of beauty, her rate of sailing must depend greatly on her trim, and on the size and rake of her masts and yards. A report of a trial between the American brig *John Gilpin*, Captain Walsh, and the British brig *Fairy*, Captain McKay, has been handed to us, and we publish it with much pleasure, being convinced that such rivalry must be productive of good.
>
> "They started twice, and the *Fairy* weathered, both times, about a mile and a half on the *Gilpin*. Each time the *Fairy* started about fifty yards on the weather quarter of the *Gilpin*, and whilst standing on the starboard tack the *Fairy* both fore-reached and went to windward, but the *Gilpin* fore-reached about one point from the time they tacked until she bore up, but was always abaft the *Fairy*'s beam; both trials were much alike, and equally in favor of the *Fairy*, she having given the *Gilpin* her royals."[27]

The history of the wreck of the *John Gilpin* opened another chapter in the brig's contribution to American

19. Barrett, *Old Merchants*, 293-301.

20. *Canton Register*, 5 September 1832.

21. Ibid., 15 October 1833.

22. Certificate of Registration no. 1189, Port of New York, 29 December 1840, Microfilm 15E-3 9/7/A, National Archives, Washington, D. C.

23. Joseph Eyre, 18 November 1844. Federal Case 7345.

24. Carl Cutler, *Greyhounds of the Sea* (Annapolis, MD: U.S. Naval Institute Press, 1930), 88. See also "*John Gilpin*," Maury Abstract Logs.

25. William A. Fairburn, *Merchant Sail* (Fairburn Marine Educational Foundation, Inc., 1955), 1813.

26. The log, owned by the author, supplements the copy of the log which was in the National Archives. There were many notations in the original log that were not in the copied log.

27. *Canton Register*, 3 February 1835. See also McGregor, *Fast Sailing Ships* (London: Conway Maritime Press, 1988), 91. He states "the latter *[Fairy]* was best on the starboard tack and the other *[John Gilpin]* on the port tack."

maritime history. After years in the Pacific, she returned to New York. On 9 September 1840, a Captain Ahmad, on his way out from New York, noted in his log that he had passed the *John Gilpin* inbound from Canton 117 days. He sent over some "potatos, segars and a mat of dates."[28] The brig arrived in New York from her last port in Brazil on Wednesday, 7 October 1840.[29]

At 10:30 A.M. on New Year's Day 1841, she left the Pine Street wharf under Captain Eyre to travel to Valparaiso, probably en route to China. She carried tea, bales of cotton and muslin cloth, and pigs (bars) of lead.[30] One account of her departure states that "Captain Eyre of their [N. L. and G. G. Griswold Company] brig *John Gilpin* had orders to sail for China on a Christmas morning; but on that morning snow was falling, the weather was thick, seamen were scarce, and the Captain did not want to start. 'There is no wind,' he said to one of the firm. 'Go and find wind,' was the reply; 'the wind is all ahead.'"[31] In a blinding snow squall that began ten minutes after she left her wharf, the brig hit a bar in the outer harbor at 11:30 A.M. and was wrecked. She was doing about ten knots going out of the harbor.[32]

Captain Eyre tried to get the brig off the bar by backing the sails. When this failed, he tried a kedge anchor but was unsuccessful because the brig was "dead against the wind." Next, he sent a boat ashore to get a lighter to try to remove some of the cargo and thereby float the brig. While he was waiting for the lighter, a steamer tried twice to pull the brig off, but both times the hawser snapped. As the storm became worse, the masts began to work loose and the brig heeled over on her starboard side and filled with seawater. By the time the lighter arrived, the storm had become so bad that it was prudent to leave the brig. The next day, the brig's owners developed a scheme to place fifty empty watertight casks inside the hull and to float the brig as the tide came up. The difficulty of getting enough cargo out of the hull to make room for the casks, however, made it impossible to accomplish the task before the brig broke up.[33]

The *New York Commercial Advertiser* gave this report of the incident:

> The *John Gilpin* — the following additional particulars relative to the vessel are from the *Courier* of this morning: At half past 11 whilst going rapidly nearly before the wind she struck upon the West Bank. Mr. Britton, a respectable New York pilot, was in charge of the vessel at the time. A steamboat passed them shortly after and within a half hour the pilot boat *Washington* No. 2, but although signals of distress were hoisted and guns were fired no endeavor was made to render any assistance. The vessel soon filled and will no doubt be a total wreck. She was owned in this city by Mr. John Griswold and Co. and had been repaired since her last voyage from Canton at an expense of 6 to $8,000.
>
> Of her cargo, which consisted primarily of dry goods suitable for the South American market valued at $60,000, a portion will be saved in a damaged state. The insurance on the vessel and cargo by the office in Wall Street is understood to be about $48,000 which will probably cover half the loss. The officers and seamen, some of whom were fitted out for a three year's voyage, are great sufferers as several of them saved nothing but the clothing they wore at the time of the accident.
>
> When our marine collector left the bay this morning the vessel was lying in the same position as on Saturday. It is his opinion that the brig will be got off unless a gale of wind from the North East should spring up before they can extricate her.[34]

On 7 January the same paper wrote that "the brig *John Gilpin* has gone to pieces."[35] Later, a Boston paper reported that "Part of the wreck has drifted upon the flats."[36] William Burger, testifying in the lawsuit three years later, stated, "Was down to wreck after she had gone to pieces, some remnants of wreck then remaining there — Witness got off some copper and iron, and delivered it to Mr. Griswold who paid him $74."[37]

Three insurance companies paid the owners for the loss in the following amounts: Ocean Insurance Company, $8,003.75; New York Insurance Company, $14,053.75; and Merchants Insurance Company, $6,652.50. The owners also realized $42,495.78 from salvage. This gave a total against their loss of $71,205.78.[38] If the *New York Commercial Advertiser* was correct in reporting that

28. "Ahmad Bin Na'aman's Mission," *Essex Institute Historical Collections* (Salem, MA: Essex Institute), 266.

29. *Shipping and Commercial List*, New York, 7 October 1840.

30. Joseph Eyre, 14 January 1841, Federal Case 7345.

31. Richard C. McKay, *South Street, A Maritime History of New York* (New York: J. P. Putnam and Son, 1934), 94-95. The term "Christmas" here refers to the season rather than the exact day.

32. Joseph Eyre, 14 January 1841, Federal Case 7345.

33. Joseph Eyre, 18 November 1844, Federal Case 7345. Backing the sails "referred to the custom, in narrow waters, of backing a brig's yards and letting her sail stem first across a river on the short leg, it being then only necessary to swing the yards to let her gather way on the long leg, thus avoiding tacking." Earnest R. Cooper, "East Coast Brigs," *The Mariner's Mirror* 34 (1945): 148.

34. *New York Commercial Advertiser*, 4 January 1841. The John Griswold referred to in the article did not own the *John Gilpin*. He was the owner of a fleet of packet ships in the Atlantic passenger route.

36. Ibid., 7 January 1841.

36. *The Boston Post*, 14 January 1841.

37. Federal Case 7345.

38. Ibid.

$48,000 was the value of half the loss, then the total loss would have been $96,000, and the owners net loss after salvage and insurance payments was about $24,794.22. Moreover, Captain Eyre claimed that most of his personal trading freight of 20,000 cigars was stolen during the salvage and that some inexpensive jewelry he was taking to some female friends in Valparaiso was also lost.[39]

To make matters worse for the owners, the salvagers brought suit in Admiralty in the District Court for the Southern District of New York. Peter W. Roff and his crew of salvors sued to get paid for salvage work they had done on the cargo and fittings of the *John Gilpin* before she broke up. The owners of the vessel did not agree that they owed Roff anything. Daniel Lord, Jr. argued for the libellants while the firm of Griffin and Bidwell argued for the claimants. Judge Samuel R. Betts heard the case on Tuesday, 4 February 1845, at the City Hall in New York City.

The case was important for several reasons. The *John Gilpin* had been a well-known brig, and the Griswolds were powerful New York businessmen. Moreover, the case was heard during the formative years of the American merchant marine, when salvage techniques and rescue services were being developed and the number of merchant ships and maritime accidents was increasing. It was important, as Judge Betts wrote, "to secure a just compensation for the services rendered and also afford reasonable encouragement to the rendition of like services by others."[40]

The case revolved around the issue of whether the brig was actually deserted by the owners and thereby open to salvage. Because of the intensity of the storm, Captain Eyre and his crew left the vessel and remained off it for more than twelve hours, leaving a charter captain to watch the brig from his nearby schooner. The charter captain left the scene, leaving the ship unwatched. During that time, Roff and his wrecking crew set off from Staten Island and began salvage operations in spite of the storm. When they reached the unwatched and unmanned wreck, they took possession. When Captain Eyre returned to the vessel twelve hours later, he and the owners regained control of the salvage operations from Roff after lengthy argument and after Roff had already salvaged some cargo. The owners then completed the salvage with their own men.

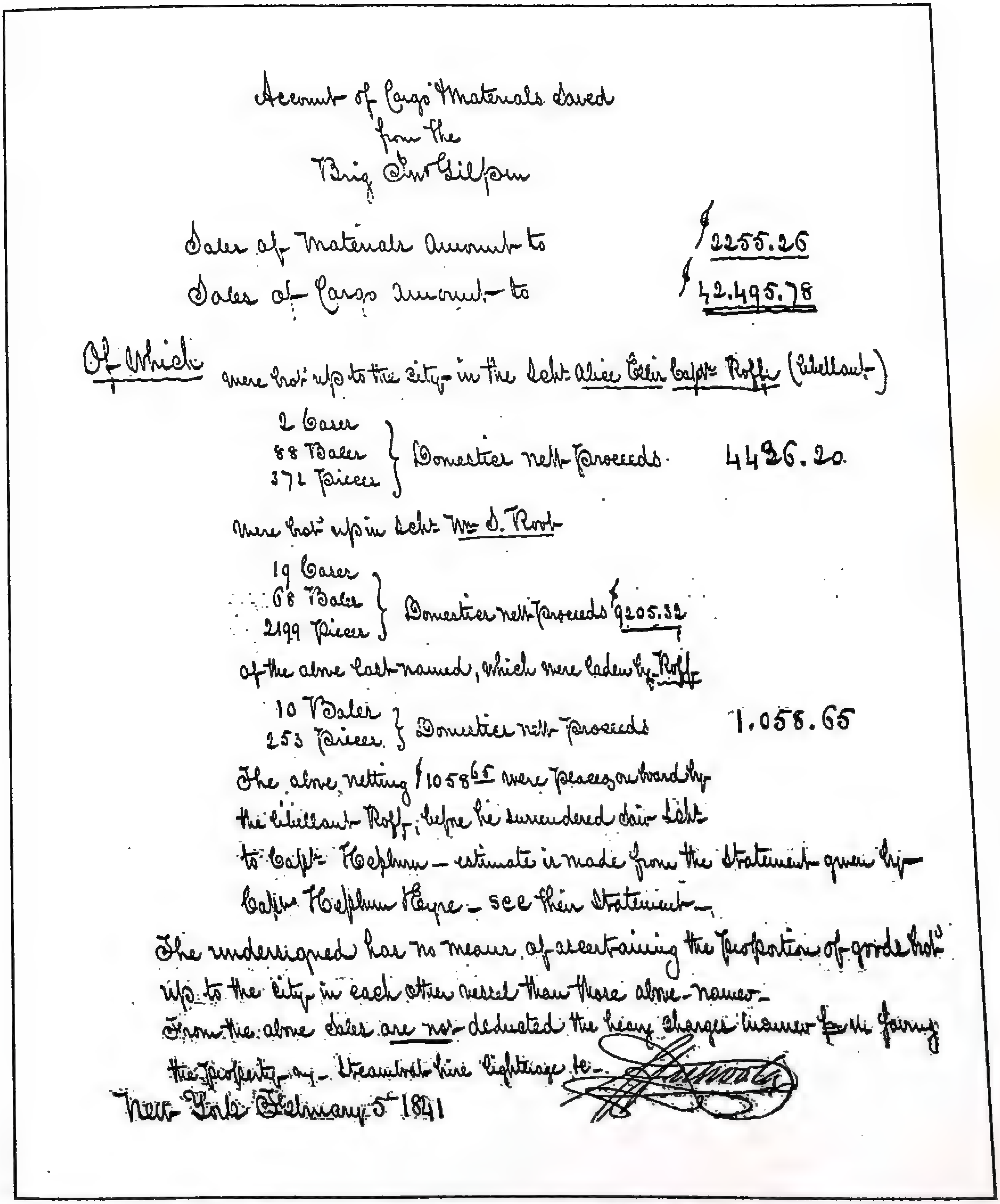
The owners or claimants tried to prove that the brig was not deserted or derelict. Captain Eyre testified that he ordered Captain McLean of the schooner *Hiram Dixon* to watch the wreck for him and the owners while he went to get help for salvage. Captain McLean denied this in his statement:

> Went down under double reefed main sail and jib without foresail it blew so hard: sea was heavy — more so out of narrows — it was still snowing and could not see brig, but found her by following down beach with soundings, supposes he found her at about 4 o'clock — she was full of water — sea breaking over her fore and aft; men all standing aft holding on . . . . Bow was under water, and things were washing off deck — pigs poultry etc. — thinks she was about three miles from nearest land — there was a channel inside of brig, about 2½ fathoms — Found Capt on board Brig, aft, and as soon as witness got there and could come to them, crew came off — anchored his vessel and crew came off in boats — were about leaving her in long boat, when he got there — they had a good many articles in that and they were taken aboard his vessel. Left her after dark because did not think it prudent to stay there. Capt of Brig made no agreement with him whilst there for any time or service — did not agree to lie by brig — his fire was out . . . . Thinks if weather had kept on Friday as it was when he went over to the wreck, she would have gone to pieces that night — Captain must have thought so too, for he directed him not to haul along side of her, for fear the masts would go overboard onto them . . . ."[41]

The owners also attempted to prove that Roff did a poor job of salvaging the cargo. Unfortunately for the owners, most witnesses tended to state that Roff did a good job. The following testimony by Henry Dixon was typical:

> Went down to *Gilpin* about 9 o'clock, with her captain [Eyre], witness had been employed in rigging her — Went down in steamboat *Hercules* — 3 other men went down with him, 3 staid, one went away — went to work immediately stripping brig — Captain Niles [of the *Hercules]* told witness when he went aboard that wrecker had charge of Brig and witness must make his arrangement with Roff and go to work stripping her — Roff engaged to give witness $3.00 per day and $3.00 per night — other men agreed to go to work at that, and went to stripping her — The wreckers were working in Hatchway when he went onboard — lee side was under water — weather side, and some of goods out of water — Thought the men were at work smartly — some of them were in the water in hold; Roff's men looked like stout hardy men — Another steamer came down in afternoon and a stout man in Claimant's employ came in her (Captain Hepburn) and asked Roff if he wanted more men — Roff said he did not know but would inquire of riggers — did so and witness said he wanted more — Roff

39. Ibid.
40. Ibid.
41. Ibid.



Account of Cargo & Materials saved
from the
Brig Jno Gilpin

Sales of Materials amount to $2255.26
Sales of Cargo amount to $42.495.78

Of Which were brot up to the city in the Schr Alice Ellen Captn Roff (Libellant)

2 Cases
88 Bales
372 Pieces } Domestics nett proceeds 4436.20

were brot up in Schr Wm S. Root

19 Cases
68 Bales
2199 Pieces } Domestics nett proceeds $9205.32

of the above last named, which were laden by Roff

10 Bales
253 Pieces } Domestics nett proceeds 1.058.65

The above netting $1058.65 were placed on board by
the Libellant Roff, before he surrendered said Schr
to Captn Hepburn — estimate is made from the Statement given by
Captns Hepburn & Hayne — see their Statement —
The undersigned has no means of ascertaining the proportion of goods brot
up to the city in each other vessel than those above named —
From the above sales are not deducted the heavy charges incurred for the saving
the property say — Steamboat hire lightrage &c —
New York February 5th 1841

Figure 1: Account of the cargo and materials saved from the brig *John Gilpin* signed by George Griswold, 5 February 1841. From Federal Case 7345, courtesy of the National Archives.

told witness to take what he wanted — Witness took 9 more — Roff said they should have same wages and witness — Captain H. said to Roff if any goods were lost for want of men enough to work, would hold Roff responsible — Does not think more than one vessel could be advantageously employed at Brig.[42]

Another of the witnesses, Joshua Jones, provided an interesting view of what life in those small craft must have been like in the days without electricity. He was testifying that Roff's wreckers were hiding what they were doing from the owners' agents, the underwriter Atkinson, and Captain Hepburn, one of the Griswold ship captains:

> Not quite dark but soon became so — there were two vessels lying near the brig one along side and the other a little off, with goods from the Brig on board — Mr Atkinson asked name of owner of the schooner — and would not give it — thinks that was the schooner which had but few goods in her — There was a light on board which was blown out — Capt. H. [Hepburn] wished witness to go on board of her, with a light, and found some goods on board — sails, a bundle of leather, a few pieces of cotton goods, and a gun or two which came from Brig . . . . There were 2 or 3 men in the cabin, did not see them there before he went on board — lights were blown out before he went on board — can't tell how he saw into the cabin, whether by companionway or windows — light disappeared, that was all he knows about it . . . .[43]

After hearing all the testimony, Judge Betts decided in favor of the salvors. He explained the salvor's right of possession of abandoned property by stating: "Possession being thus taken when the vessel was, in fact, abandoned and quite derelict, under peril of instant destruction, the libellants had a right to retain it until the salvage was completed, and no other person could interfere against them forcibly provided they were able to effect the purpose and were conducting the business with fidelity and vigor."[44]

With regard to the owners' interference with the salvor's possession, Betts commented that "those beginning a salvage service and who are successfully prosecuting it are entitled to the sole possession of the property. If they are interrupted or intercepted in the work by others who complete the salvage service and bring in the salved property, the first salvors will, nevertheless, be regarded as the meritorious salvors."[45]

42. Ibid.
43. Ibid.
44. Norris, *Benedict on Admiralty*, Section 151.
45. Ibid., Section 152.

Having made this judgment, Betts still had to award Roff his share of the salvage. The claimants had presented a document, signed by George Griswold, showing the value of the salved cargo that Roff had loaded onto two lighters, the schooners *Alice Ellis* and *William Rost* (see figure 1). Testimony had verified that Roff and his men had filled the *Alice Ellis* and half of the *William Rost* and had gotten the rigging down before being relieved of the salvage work by the owners. The judge then used the owners' valuation. The basis for Roff's fee was the value of the rigging and the value of the material he loaded onto the lighters. The amount was calculated to be $11,294.07 — $2,255.26 for the rigging, $4,436.20 for the whole *Alice Ellis* cargo, and $4,602.61 for half the *William Rost* cargo. The judge awarded Roff and his crew a fee based on one-fifth of this amount, or $2,258.81.[46]

The legal fees that Roff incurred in prosecuting his case, however, amounted to $2,688.22. It is not clear from the records which party, the libellants or the claimants, was responsible for the legal fees that Roff owed, but the fees were paid to Daniel Lord Jr. on 21 July 1845.[47] No records were found of the legal fees on the claimants account. Captain Eyre received no compensation for the loss of his cigars and jewelry.

Thus ended the story of the *John Gilpin*, a China trade brig born in one of the small tidewater shipyards of the Chesapeake Bay. She sailed under the management of first-rate China merchants and masters, and her speed was documented as exceptional for her time. Her career in the South American trade remains to be researched, as does her wreck. Ideally, an archaeological project could be developed to search for any of the wreck still remaining off Staten Island. Some of the unrecovered pigs of lead might still be there, along with remnants of the sleek starboard side of this fast brig which, even in death, made merchant marine history.

46. Federal Case 7345.
47. Ledger of Daniel Lord, Jr., January 1839 - November 1854 and Debts Receivable Ledger 1845. Courtesy private library of Lord, Day and Lord, 1675 Broadway, New York, NY.

Thomas Hollyday holds degrees from Johns Hopkins University and Clark University. His recent article on the architecture of Readbourne Manor in Centreville, Maryland was published in the Maryland Historical Magazine. He serves on the Executive Committee of the Old Sturbridge Village Research Library Society and the Archives Committee of the Historical Society of Talbot County, Maryland. In Boston, he is a member of the Keechong Society, a group of China Trade historians.

Assuming a First Command:
Captain Caleb Franklin Carver's Letter to Captain Lincoln Alden Colcord

PARKER BISHOP ALBEE, JR.

Joanna Carver Colcord, author of *Songs of American Sailormen* and *Sea Language Comes Ashore*, as well as contributor to *The American Neptune*, always maintained an active correspondence with her brother, fellow writer and *Neptune* founder Lincoln Colcord.[1] Since youthful days shared aboard their father's sailing vessels in the late nineteenth century, both siblings had gone on to write of the sea. Just as a ship's deck had linked them in earlier days, in adulthood they were united through their letters. Theirs was a correspondence characterized by frequent expressions of personal and professional encouragement, revealing a close bond forged by the confining domicile of their youth. One suspects that in Joanna's case an added stimulus to maintain the correspondence was the fact that her professional life with the Russell Sage Foundation in New York distanced her from her Maine roots. It was Lincoln who, after 1920, resided in their ancestral seat in Searsport overlooking Penobscot Bay.

Frequently Joanna's correspondence with her brother took a nostalgic tack toward a treasured past. One such instance occurred in October 1942 when she wrote of a family letter she had come across:

Oct. 27, 1942

Dear Link —

> Did you ever see this perfectly grand letter from Uncle Frank? I thought it might do for [the] back of [the] *Neptune*. You can put in any details you want in [a] foreword. If they want a picture of Uncle Frank, too, I recall a good one in that trunk upstairs.
>
> The little touch about making your crew look on you as a friend is funny when you remember Uncle Frank's methods. But I'm glad to see that was the accepted doctrine he was preaching, whatever his practice.
>
> How*ever* did Uncle Frank learn to spell and to write such beautiful English? It's as good as Grandmother Sweetser's.[2] And his brother Albert was positively illiterate. I don't understand it.
>
> Your loving
> Nan[3]

"Uncle Frank" was Captain Caleb Franklin Carver of Searsport. He wrote the "perfectly grand letter" in the summer of 1879, when he left the old bark *Charlotte A. Littlefield* to become master of the new bark *Hudson*.[4] His nephew and chief officer, Lincoln Alden Colcord, a young man just turned twenty-two who had lost his father seven years earlier, was taking over *Charlotte* as his first command.[5] To Captain Carver, the moment seemed propitious to pen an instructive letter to this fledgling captain twenty years his junior.

The letter's recipient, soon-to-be Captain Colcord, became the father of Joanna and Lincoln. For the rest of his life, Captain Colcord kept this letter from the man who had guided his early years of seafaring:

1. J. C. Colcord, *Songs of American Sailormen* (New York: W. W. Norton and Co., 1938) and *Sea Language Comes Ashore* (New York: Cornell Maritime Press, 1945). Joanna's contributions to the *Neptune* included "Domestic Life on American Sailing Ships," (2, no. 3 [July 1942]: 193-202), "Boyhood Under Sail: 1874-1881," (3, no. 3 [April 1943]: 106-130), "Salving the Ship *Crystal Palace*," (3, no. 4 [October 1943]: 314-326), "Salving the Ship *Crystal Palace*," Part 2, (4, no. 1 [January 1944]: 31-44), and "Loss of the *Malleville*," (4, no. 4 [October 1944]: 318-323).

2. "Grandmother Sweetser" refers to Susan Locke French, wife of Captain Jeremiah Sweetser III.

3. Joanna Carver Colcord to Lincoln Colcord, 27 October 1942, Lincoln Colcord Papers in the possession of Brooks Colcord (hereafter cited as Colcord MSS).

4. *Charlotte A. Littlefield* was 548 tons, 138.6' long with a 28.8' beam and an 18' draft. The vessel was built in Bangor by T. Oakes in 1864.

5. Lincoln Alden Colcord was born in 1857; his father, Benjamin Loring Colcord, was born in 1833 and died in 1872. Caleb Franklin Carver was born in 1837.

Boston, Aug. 1879

Dear Nephew,

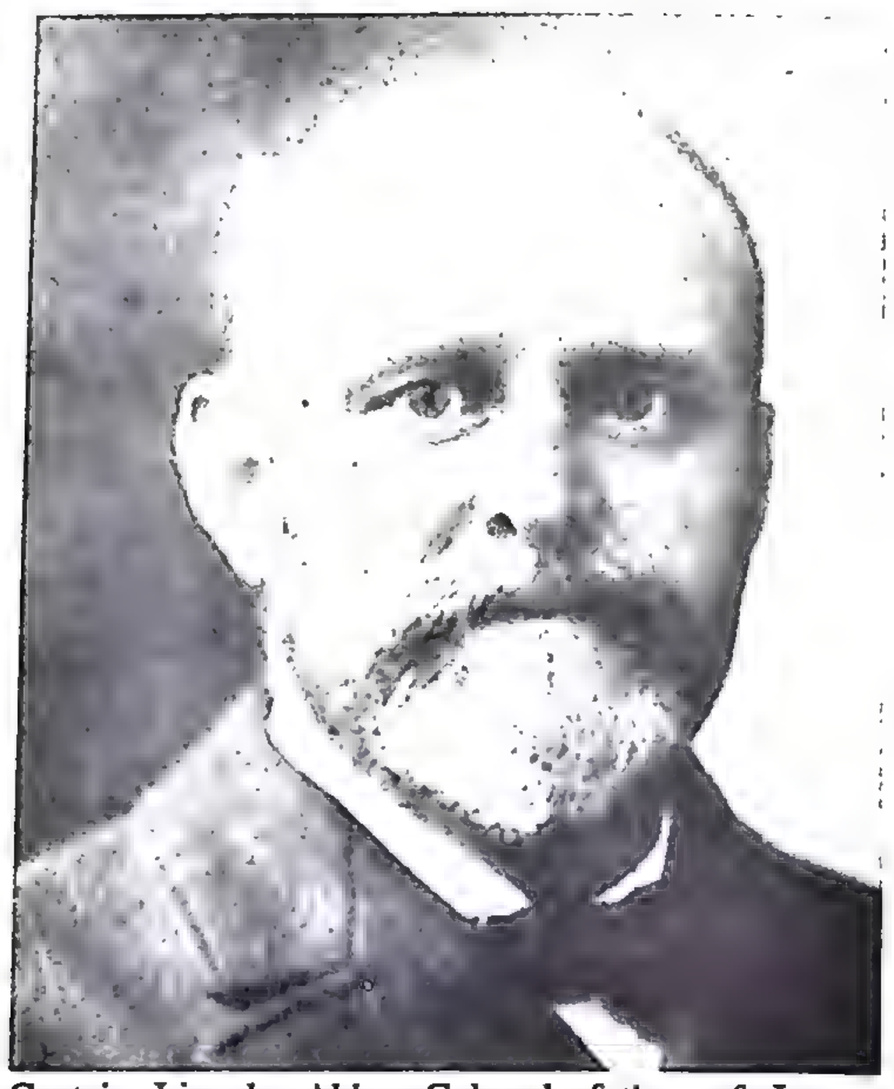
The course you have now entered upon is one that will tend to shape your whole future, and requires great thoughtfulness and discretion to save you from being wrecked on the many dangers that surround the path of almost every young man starting out in life, and upon which so many fall.

It is true you are young and have known no great cares. It is different with you now, where you are in a great measure responsible for the lives and property under your charge; and it will be necessary for you to cast aside all single and selfish ideas. You are now a sort of magistrate, vested with no little power, which you must use discreetly between your officers and crew. When any trouble arises between your officers and seamen it is always your duty to mediate, and never to cherish revenge toward those under your care. Try to make every one feel you are a friend, and by so doing you will always command respect, and generally prompt obedience.

Duties. The duties of a master on board are numerous and almost unlimited, as he is the only one responsible. It is his duty to supervise every part of the ship; whether in the ordinary duties at sea, or in port, he should try to know all that is being done about him. In stowing cargoes of all kinds it is his *special* duty to superintend the laying of the floor and bilge dunnage, and from time to time look after the general stowage of the cargo, to end with proper care in securing the hatches and ports, the owners being always responsible for any loss by neglect, or damage thereby. It is your duty to navigate and sail the ship, to give all the courses, and to use your own judgment in carrying sail. Never take the advice of others unless it compares favorably with your own. Always be on the alert in dangerous or threatening weather, and not trust to the officers in squally weather, as they do not feel the care that a master generally does. There are always chances enough to rest and sleep, as you can leave the deck whenever the vessel is in safety.

Do not neglect to examine the mate's log-book from time to time. In times of heavy weather, you should assist the mate in arranging it, but make no entries yourself as long as the mate is on duty, or unless he is incompetent.

Society. In visiting different ports you will always meet with shipmasters and men in various positions in life, — *indifferent characters.* Such are to be avoided; to be treated with cool politeness, which will invariably keep them at a distance; and if they do not like you, they will be sure to treat you respectfully. You have already noticed men in foreign ports *old and young,* who visit public houses and stay away from their vessels for days, leaving everything to the care of the mates; such are to be avoided *socially.* Never rush into the arms of strangers or introduce yourself



Captain Lincoln Alden Colcord, father of Joanna Carver Colcord and Lincoln Colcord. Photo courtesy of the Penobscot Marine Museum.

abruptly to them. Before making new acquaintances, it is better to observe them in the distance, to find out if their tastes and habits compare with yours. Such a character as B-------[6] should be avoided as a pestilence. He would rejoice at the destruction of any man or woman *morally.* Any one wishing to live correctly can always find suitable associates by carefully observing those around them.

Business. In starting out young, you will not be expected to have a thorough knowledge of business, but it will be your first and most important duty to acquire all the information you can possibly get. Merchants and brokers have so little regard for truthfulness and fair dealing that it stands one in hand to be on his guard *always.*

On signing a charter party it is necessary to read it over carefully several times to be sure you understand every clause. Should any part appear doubtful, take it with you and ask the advice of an experienced captain; only be sure even *he* has no interest in misleading you. The parts requiring particular attention are those relating to the manner of receiving and delivering cargo, laydays, payment of freight, and commissions. The latter requires special attention, as brokers often try to make you think they are giving you extra freight, and add an extra commission to outbalance it.

6. "B-----," unidentified.

Captain Caleb Franklin Carver, from whom Captain Lincoln Alden Colcord received lessons in command. Photo courtesy of the Penobscot Marine Museum.

When signing bills of lading, use very great care, and see that the marks and numbers compare with the receipts. All goods or mdse. in bbls. or boxes signed for *Weight and Contents Unknown;* all articles subject to breakage signed for *Not Accountable for Breakage.* The following clause should be inserted in the charter party, viz. — Freight and all other conditions as per charter party.

Your own good sense will generally guide you in all matters, only be prudent in the outlay of money, and do not associate with extravagant men, as they will be sure to lead you away in time. Save your money so that you may be able bye and bye to help yourself and possibly help others. You have now a start in life that very few of your age have had, and I trust you will be successful. And may God's blessing rest with you in well-doing, is the prayer of your

Affect. Uncle,
C. F. Carver.

P. S. Be sure and not get careless in the care of the vessel. If you do not set examples of neatness and prudence, you cannot expect it of others under your command. On board any ship when the captain leaves tobacco quids about decks or under the table, the officers will generally try to imitate him.

I have almost always noticed when you come on board of a vessel, if you are not successful, I am in a great measure to blame. Having been plain spoken, I have no doubt been or seemed to be disagreeable, but I assure you I have always had your interest at heart.[7]

Captain Carver went on to command the bark *Hudson* and a number of other sailing ships. He died in 1914 following a long retirement. Young Captain Colcord, with these candid words of advice from Uncle Frank, assumed command of *Charlotte A. Littlefield.* The little bark would loom large in his life. His first years of marriage were spent aboard the vessel. Wed to Jane French Sweetser on a June day in 1881, he and his bride departed their hometown of Searsport that very evening for New York and the awaiting *Charlotte.* Next they set sail on a voyage that would circumnavigate the globe. Their two children were born aboard *Charlotte* on this voyage: Joanna in the South Pacific in 1882 and Lincoln in the South Atlantic in 1883.

Life on board *Charlotte* did not prove easy, and, naturally, the trials of being a ship's master often extended to situations beyond those addressed in Uncle Frank's letter. One particularly harrowing trial occurred at the time of Lincoln's birth. *Charlotte* had just rounded the Horn on a passage from Valparaiso to New York when she was caught in a severe midwinter gale — the type of dangerous weather about which Uncle Frank had forewarned. Deeply loaded with nitrates, the nearly twenty-year-old bark sprung a leak in the perilous seas, and in her lower hold the water was gaining on the pumps. "Pumps attend. to every hour Vessel Making Considerable More water than Usual" reads the mate's entry dutifully scribed in the *Charlotte*'s log for 14 August 1883.[8] In the midst of the crisis, Jane Colcord went into labor, forcing the captain to choose between commanding his ship or attending his wife. Before midnight Jane gave birth to a son, assisted by a husband fearful that his ship and newly expanded family would never make port.[9]

The storm passed, the seas subsided, the pumps gained on the water in the hold, and one month later Jane was able to write of young Lincoln's birth:

At sea 10 N., Sept. 16, 1883

Dear Mother and boys —

Well, I have a bit of news that I expect will make you "open your eyes, wide with surprise"; and that is that we have another baby — a boy this time. I expect you will hardly believe it, but it is even so. . . .

7. Caleb Franklin Carver to Lincoln Alden Colcord, August 1879, typed copy by Joanna Colcord in Colcord MSS.

> I am sorry to say that the poor old "Charlotte Ann" has sprung a leak — has been leaking ever since the 13th of August. [When] they discovered the leak, there were several feet of water in the hold. The next night, the baby was born, and before that week ended, we had two as bad gales as any this voyage; and so, taking all the work he had to do for the babies and me, poor Link did have his hands full. . . .[10]

The family finally docked in New York harbor in November 1883, ending a voyage that proved to be their last aboard the aged ship. *Charlotte* passed into other hands and was lost in 1891.[11]

Charlotte was gone, but it is interesting to note that Uncle Frank's hold on this tradition-oriented seafaring family survived to influence yet another generation. As the years passed, the younger Lincoln grew up nurturing a passion to be a writer. His was a passion kept secret, however, as he knew it did not square with the image of the "ideal man" held by Uncle Frank and presumably by his own father. When he came of age, Lincoln was left ashore to attend the University of Maine, and by his sophomore year he could repress his yearning no longer. Writing from his dormitory room in the spring of 1902 to a father about to set sail from New York, he painfully broached the subject of his becoming a writer. "I'll write of ships always," the eighteen-year-old son promised, fearing that in choosing this pursuit he would not be living up to a father's expectations.

> You have told me at odd times that I am bright and acute, etc; if you are right, I have used this to think a good many things, and among these is the ideal of the man you would like, the picture of your ideal man. When I was little I had grafted over the worship of the man that does things, works; a milder form of what Uncle Frank taught you. And so my man, and yours, is a man who does things; I have had so many bitter pills to swallow, so many smarter boys that I must respect and look up to in my heart, during these last two years. They all do things; some work their way, some, lazy as they are, are athletes, strong;[12] and I know how it would please you to have me work.[13]

With trepidation, he requested permission to use the Searsport home that summer for purposes of writing rather than working.

This anguished son had feared disappointing his father, and had even anticipated outright rejection of his request. But a father's prompt response revealed that this family could break with tradition as well as adhere to it. Joanna's letter to Lincoln in 1942 indicates that, in one instance, the family recognized a discrepancy between Uncle Frank's preaching and his practice; likewise, Captain Colcord's 1902 letter to Lincoln shows that he had sometimes questioned his training under Uncle Frank's aegis. With affection and understanding, he replied to his son:

New York, April 17, 1902

> My dear, dear Boy: I received your letter this morning; and, Linkie, I hardly know how to answer it. Of course you can stay at home next summer — all the summers that you want to. To me, the pity of it is that you have felt it necessary to ask me this, or that you think I may be sorry that you are not laboring with pick and shovel. . . .
>
> I am older now than when you got your first lessons from me, and have learned, with you, many things. One is, that some of my old theories — theories that had been ground into Uncle Frank, and that he ground into me — are not all perfect or correct. And some I wish I had never learned.

"The home is yours, for you," a loving father concluded, "and we will all look forward with anxiety and hopefulness to the outcome."[14]

Indeed, as active correspondents Joanna and Lincoln were heirs to a family letter-writing tradition that today illuminates America's maritime experience under sail. Thankfully, Uncle Frank's letter was saved as were hundreds of others; together they comprise a treasure trove bequeathed to us by this remarkably literate seafaring family.

10. Jane Sweetser Colcord to Susan French Sweetser, 16 September 1883, typed copy by Joanna Colcord in Colcord MSS.

11. Captain Colcord subsequently commanded other sailing vessels, turning to steam in 1904, until his death on board SS *Kansan* in Bremerhaven in 1913.

12. Lincoln's contrasting himself to "athletes, strong" is undoubtedly a reference to his having contracted a severe case of rheumatic fever in the fall of 1900. Coming in his freshman year, the illness caused him to drop out of the University for the academic year and adversely affected his health thereafter.

13. Lincoln Colcord to Lincoln Alden Colcord, 15 April 1902, Colcord MSS.

14. Lincoln Alden Colcord to Lincoln Colcord, 17 April 1902, typed copy by Lincoln Colcord in Colcord MSS.

Parker Bishop Albee, Jr., is Associate Professor of History and department chair at the University of Southern Maine. He holds a Ph.D. in history from Duke University and is curator of the Lincoln Colcord Papers. Albee has authored numerous articles and papers on Colcord, and is currently editing a book of selected Colcord family letters.

Query and Response

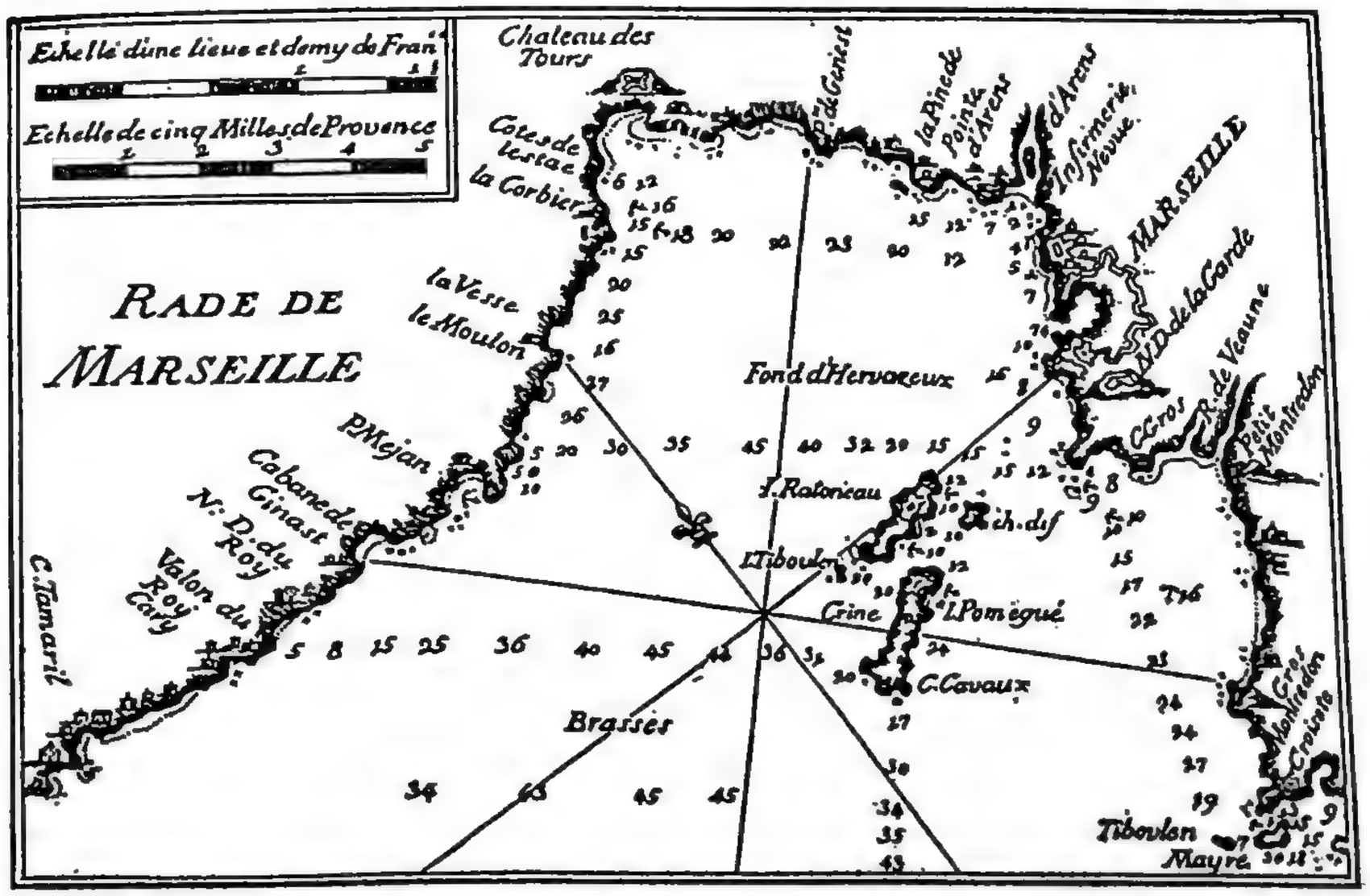
Dear Editor:

In a recent issue of *The American Neptune* (50, no. 1 [Winter 1990]), an article written by Evan Randolph entitled "Roux Painting Mystery Solved!" appears to prove the identity of three American naval vessels shown entering an "unidentified French harbor." Unfortunately, although Mr. Randolph's main assumptions appear satisfactory, his conclusions are not correct.

Mr. Randolph is correct in assuming that the lead ship is an American 36-gun frigate, but he is incorrect in naming the lead vessel as *Constellation*. However, *Constellation* does appear in the painting, for she is the third and last craft in line. The lead vessel would be the then-current flagship of the Mediterranean squadron, as she is flying a commodore's pennant from her main royal masthead. Therefore, this painting probably depicts an incident that occurred shortly after Captain Samuel Barron on board *Constitution* had transferred (due to poor health) his command of the American squadron, then in the Mediterranean fighting the state of Tripoli, to Commodore John Rodgers on board the frigate *Congress* on or about 22 May 1805. (See *A Naval Encyclopedia* [Philadelphia: L. R. Hammersley and Company, 1884], 696.) Commodore Rodgers could have commissioned this painting shortly after receiving his pennant of command, but prior to the eventual transfer of his flag to *Constitution*, a 44-gun frigate, the flag vessel of the squadron. The unidentified French harbor appears to be the approach to Marseilles, which Rodgers may have used as a fleet refit port several months prior to the squadron's appearance against Tunis on 1 August 1805. The fort in the background appears to be located on "I[sland] Ratoneau," while the fortifications in the foreground appear to be located on "ch. dif," a small island to the east of Ratoneau (see chart below).

Congress, launched 15 August 1799, though listed as both a 36-gun as well as a 38-gun frigate, actually carried forty guns as her main armament. These pieces were distributed in accordance with the tables found in *Register of Officer Personnel . . . and Ships' Data 1801-1807* (Washington: GPO, 1945), page 69, as follows: twenty-eight 18-pounders on her main gun deck and twelve 9-pounders equally divided between her forecastle and quarterdeck, for a total of forty guns. This battery was installed in 1799 and had not changed before this period of the frigate's Mediterranean service. An examination of the Roux painting indicates that the lead vessel carries forty guns distributed as described above; therefore, the lead craft illustrated must be, and can only be, the frigate *Congress*.

Constellation, the first of the 36-gun frigates launched (7 September 1797) carried in 1805 the following guns, according to a list dated 1800 found in the *Register:*



The approach to Marseilles, from "Recueil des Prinapaux Plans des Ports et Rades de la Mer Mediterranée" by Joseph Roux.

The identity of the lead vessel in this 1805 painting by Antoine Roux remains the subject of debate. Photo courtesy of the Peabody Museum of Salem, Massachusetts.

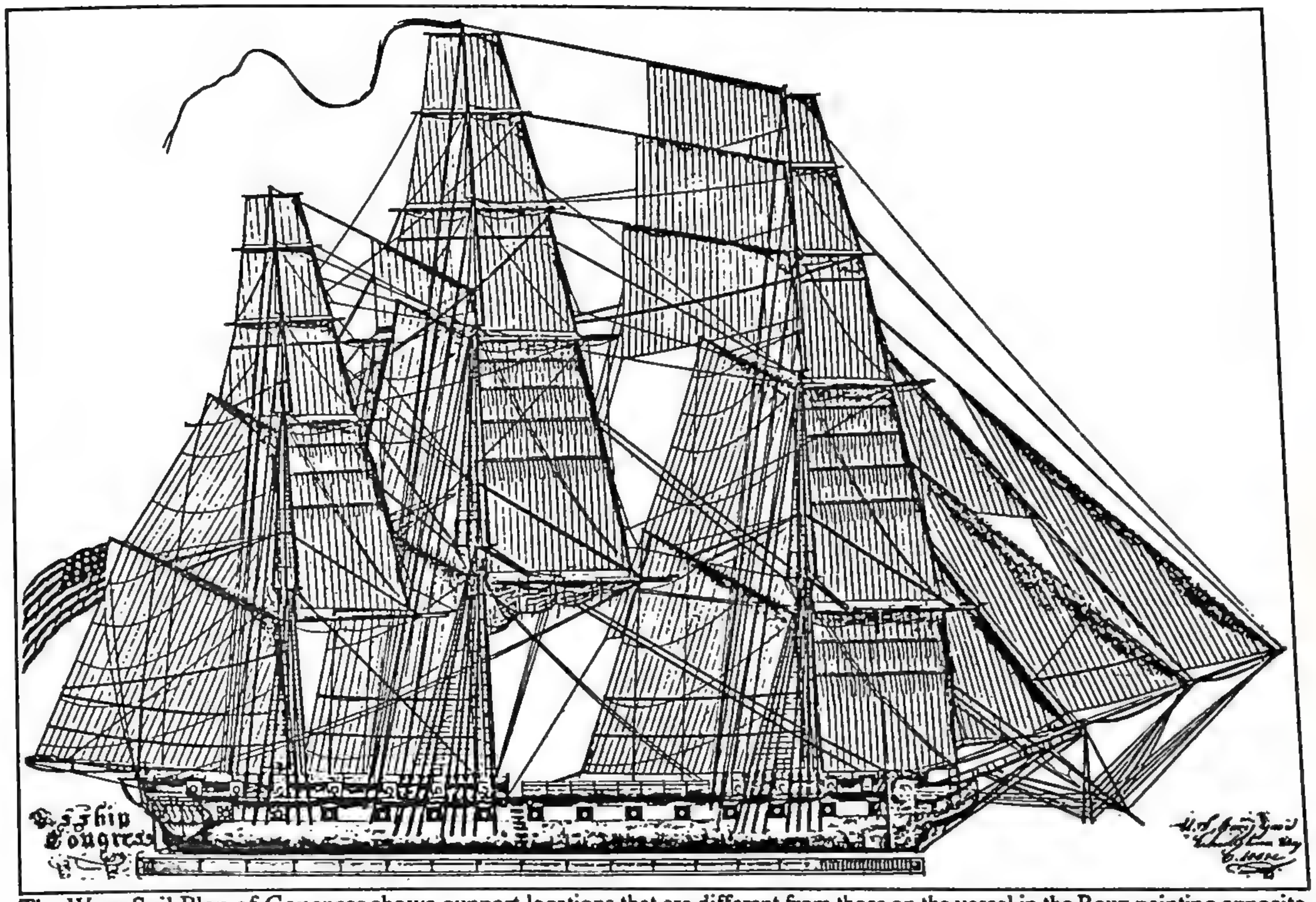
twenty-eight 18-pounders on her gun deck and ten 24-pound carronades on her forecastle and quarterdeck, for a total of thirty-eight guns. The painting, however, shows the lead frigate armed with forty guns, the number of guns which *Congress* was known to have carried.

Chesapeake, the last of the first three American 36-gun frigates launched (2 December 1799), carried forty-two guns: thirty 18-pounders on her main gun deck and twelve 32-pound carronades on her forecastle and quarterdeck. Thus, this frigate carried too many guns and can be dismissed as the frigate represented. Also, as Mr. Randolph states, *Chesapeake* was not in the Mediterranean during the period that this painting represents and therefore could not be the lead frigate of forty guns.

Mr. Randolph indicates his lack of basic masting and rigging knowledge for this period of the early nineteenth century when he states that the lead frigate illustrates "a three part masting system" while inferring that only *Constellation* "had a three part masting system." *Constellation* and *Congress* had the same general set of masts and spars as other American naval three-masted ships of the period.

Though not all nineteenth-century naval vessels were masted and rigged in a similar manner, it is assumed that American naval technology for this period of the nineteenth century closely followed British naval practice as found in Steel's *Elements of Mastmaking, Sailmaking and Rigging*, first published in London in 1794 and appearing in several editions in the next century.

Ship flags provided information about individual vessels, and the British system of identification appears to have been introduced into the American Navy at an early date. The flag flying from the masthead of the lead frigate in the painting represents a Commodore's Distinctive Flag, described as "a broad pennant, blue, red, or white, according to rank, with a single five-pointed star in the center of the field, white in the blue and red pennants, and blue in the white." (See *Articles Under Cognizance of the Bureau of Equipment . . . for Vessels of the United States Navy* [Washington: GPO, 1891].) Each pennant was swallow-tailed with an angular point which fell on a line drawn at a right angle to the hoist or head from its middle, and at a distance from the head of three-fifths the whole length of the pennant. The lower side of the pennant was rectangular with the hoist or head, while the upper side sloped so as to narrow the pennant across at the extremity of the tail one-tenth the measure of the hoist, thus



The Ware Sail Plan of *Congress* shows gunport locations that are different from those on the vessel in the Roux painting opposite, suggesting that the vessel in the painting is *Constellation*, not *Congress*.

rendering the upper tail correspondingly shorter than the lower one.

Randolph is correct in listing the second vessel in line as the 10-gun sloop *Hornet*, a vessel purchased at Malta in late 1804 or early 1805. According to the *Register of Ships' Data . . . 1801-1807*, *Hornet* was built as the 71-ton merchant vessel *Traveller* in Massachusetts in 1802. Under the command of Lieutenant Samuel Evans she participated in the attack on Derne in April 1805. Later, she sailed to Philadelphia under Lieutenant William Crane, arriving on 9 August 1806 much damaged by a gale. She was sold there on 3 September 1806.

This painting by Antoine Roux is most useful as it provides one of the two known contemporary illustrations completed in Europe of the smaller form of early American frigates. Antoine Roux provides excellent, believable detail and shows how handsome these early American naval vessels were.

Though the painting indicates the French harbor as unidentified, I assume it must represent the approach to Marseilles. Joseph-Ange-Antoine Roux was born at Marseilles in 1765 and appears to have made the majority of his drawings at that city. Though a prolific painter, his main business was the manufacture of ship's logs and astrolabes sold at his father's shop in the city of Marseilles, where he eventually became owner after his father's death. Antoine Roux continued at that location until his death in 1835.

The painting, therefore, if made during the early portion of 1805, illustrates a small detachment of three American naval vessels approaching the port of Marseilles. The lead vessel is the 40-gun frigate *Congress* flying the Commodore's blue pennant, followed by the 10-gun sloop *Hornet*, with the 38-gun frigate *Constellation* last in line.

Merritt A. Edson, Jr.
Bethesda, MD

Mr. Randolph replies:

In my article entitled "Roux Painting Mystery Solved" (*The American Neptune* 50, no. 1 [Winter, 1990]: 60-62), I addressed various controversies over an Antoine Roux painting depicting a vessel which I identified as the frigate *Constellation*. Evidently some people conclude the ship shown is *Congress*, not *Constellation*. Let me introduce a plan I recently discovered (Ware Sail Plan of *Congress*, above) which proves beyond all doubt that the Roux painting is not of *Congress*, but depicts *Constellation*.

Ample evidence exists to support my contention that the Roux watercolor, ca. 1805, owned by the Peabody Museum of Salem, depicts *Constellation*. First, *Congress* had a four part masting system. This fact is clearly established by two sources: the 1799 spar dimensions, listed in volume 7 of Knox's *Naval Documents Related to the United States Wars with the Barbary Powers* on page 69, and the Ware Sail Plan of *Congress* drawn in Charlestown Navy Yard and currently held by the National Archives in Washington D. C.

The 1800 spar dimensions of *Constellation*, given in volume 7 of Knox's *Naval Documents* on page 70, indicate a three part masting system. The Roux painting shows a frigate with a *three* part masting system, definitely not *Congress*, which had a *four* part masting system. Clearly, the painting fits the description of the three part masting system described as being on the *Constellation*.

Additionally, the Ware drawing of the hull of *Congress* gives further proof that the Roux painting does not depict that frigate. Two major differences are evident between the Roux painting and the Ware Sail Plan. First, the Ware drawing of *Congress* shows the ladder between gunports eight and nine. The Roux painting of *Constellation* shows the ladder between gunports seven and eight. Second, we know that there were fourteen gunports on the quarterdeck of *Congress* in 1808 (see Josiah Fox Papers, item 773, Peabody Museum of Salem, Massachusetts). The Ware drawing confirms this and shows seven quarterdeck gunports on the starboard side, but the gunports in the Ware drawing are not in the same locations as those in the Roux painting. For example, in the Ware drawing of *Congress*, the forward quarterdeck gunport is slightly *forward* of main deck gunport number nine, the next aft quarterdeck gunport is forward of main deck gunport number ten, etc. In the Roux painting of *Constellation*, the forward quarterdeck gunport is *aft* of main deck gunport number nine, and appears centered between main deck gunports nine and ten. The next aft quarterdeck gunport is between main deck gunport ten and eleven, etc. Clearly, the gunports in the Roux painting and in the Ware drawing of *Congress* do not match.

As an aside, *Constellation* had twelve gunports on the quarterdeck, compared to fourteen for *Congress* (see Josiah Fox Papers, item 773, Peabody Museum). The spacing in the Roux painting indicates six gunports on a side, assuming three similarly spaced gunports behind the lifeboat on *Constellation*'s stern quarter.

Further evidence of the vessel's identity lies in the broad pennant flown on the frigate depicted by Roux. According to Gordon Bowen-Haswell, Historian, Early History Branch, Naval Historical Center, Washington Navy Yard, the practice in those days was for the senior captain to fly the broad pennant when a junior vessel was in company. The Roux painting depicts Lieutenant Samuel Evans of the *Hornet* in company with senior Captain Hugh Campbell of *Constellation*. The only time a broad pennant appeared on board *Constellation* was when Hugh Campbell was on detached duty to Derne and had under his command *Hornet* and *Argus*. However, from the time *Congress* arrived in the Mediterranean on 12 August 1804 (under the command of John Rodgers as part of Samuel Barron's squadron) until 14 November 1804, she never flew the broad pennant. On 14 November 1804, Rodgers assumed command of *Constitution* and junior Captain Stephen Decatur was given command of *Congress*. Decatur never flew a broad pennant when in command of *Congress* on Mediterranean duty. Furthermore, *Congress* did not operate with *Hornet* at any time under Rodgers's or Decatur's command on a detached basis (see Knox, *Naval Documents — Barbary Wars*, vols. 5 and 6).

Finally, after consulting with noted naval historians Philip C. F. Smith, Philip Lundeberg, and the late William A. Baker, the editors of *The Frigates*, a volume of the Seafarers Series published by Time-Life Books, identified the vessel in the Roux painting as the *Constellation*.

Evan Randolph
Manchester, MA

To our readers: Mr. Edson has also pointed out to us that in Mr. Randolph's most recent article in the *Neptune* entitled *"Fouled Anchors?* Foul Blow!" (52, no. 2 [Spring 1992]), note 18 on page 101 incorrectly dates a letter from Commodore Charles W. Skinner, Chief of the Bureau of Construction, to Secretary of the Navy William Graham. The letter was written on 19 December 1851, *not* 1981, obviously. The fault was entirely ours, not Mr. Randolph's, and the *Neptune* sincerely regrets the error.

Dear Editor,

In the Spring 1992 issue of *The American Neptune*, Dana Wegner's article "An Apple and an Orange: Two *Constellations* at Gosport, 1853-1855" questions a document I used in my article "The South Carolina Frigate: A History of the U.S. Ship *John Adams*" in *The American Neptune* 47, no. 1 (Winter 1987). In a reference to Bureau of Construction and Repair Plan No. 85740 on page 91, note 42, of his article, Wegner states that "Navy researchers were not able to review the drawing because National Archives staff were unable to locate it or an index entry for it in the plan files." Fortunately, I retained a copy of this drawing, which Mr. Wegner may inspect at his convenience.

W. M. P. Dunne
Southampton, NY

News

Call for Contributors

The editors of the Dictionary of American Biography have issued a call for contributors to Supplements Nine (1971-75) and Ten (1976-80), to be published by Charles Scribner's Sons in 1993 and 1994, respectively. Contributors will earn an honorarium of 10¢ per word and will receive free copies of the supplements to which they contribute. For information about writing biographies (mostly one thousand words in length) or about nominating candidates for inclusion in Supplements Nine and Ten, contact General Editor Karen E. Markoe, SUNY Maritime College, Fort Schuyler, Bronx, NY 10465, (212) 409-7252 or (212) 597-9559, or fax (212) 409-7392.

Navy Records Society Plans Centenary Volume

Founded in 1893, Great Britain's Navy Records Society published its first volume in 1894. To note the anniversary, the NRS Council plans the publication of a special Centenary Volume. The goal for the volume is an ambitious one — to print the essential documents of British naval history from 1204 to 1960 in a volume that will introduce the subject to the beginner as well as broaden the knowledge of the specialist. A. B. Sainsbury will direct the project designed to serve as a memorial to the Society's first hundred years.

USC Press Seeks Manuscripts

The University of South Carolina Press, one of North America's foremost publishers in maritime studies, is seeking manuscript submissions in maritime history. Authors should contact David Caffry, Acquisitions Manager, USC Press, 1716 College Street, Columbia, SC 29208.

1993 Early Modern Maritime History Institute Planned

The John Carter Brown Library of Providence, Rhode Island is making plans to follow up this summer's session on fifteenth- and sixteenth-century European exploration with a second course on maritime trades in the seventeenth and eighteenth centuries. Scheduled for August of 1993, the four-week National Endowment for the Humanities Summer Institute is designed for college and university faculty in all humanities disciplines as well as for curators of cultural/historical organizations with significant maritime collections who have teaching responsibilities. Its goal is to prepare scholars for teaching maritime humanities regardless of their period of interest or specialization. The insititute is limited to twenty participants, each of whom will receive travel funding and a stipend of $1,000. For information and application forms, contact the Maritime Institute, John Carter Brown Library, Box 1894, Providence, RI 02912.

AGLMH Plans Annual Meeting

The Association for Great Lakes Maritime History will hold its 1992 meeting in Duluth, Minnesota on 17-20 September 1992. In addition to the presentation of papers and the annual business meeting, a tentative schedule includes several Lake Superior dives, alternate activities for non-divers, and a reception aboard the restored Great Lakes ore carrier *William A. Irvin*, the 1933-built former flagship of the U.S. Steel fleet. For information, contact David T. Glick, Administrative Secretary, Association for Great Lakes Maritime History, P. O. Box 25, Lakeside, OH 43440.

Greenwich to Hold Archaeology Conference

The Nautical Archaeology Society, Oxford University Maritime Archaeological Research, the National Maritime Museum, and the World Ship Trust will hold a two-day international conference on "The Archaeology of Ships of War" at Trident Hall, Royal Naval College, Greenwich, England on 31 October - 1 November 1992. Papers will focus on five themes: Survey and Excavation Reports, Weaponry and Ordnance at Sea, General Research, Care and Construction of Preserved Naval Ships, and Naval Dockyards. The conference, part of the celebration of the 1992 International Maritime Heritage Year, will include dinner aboard the *Cutty Sark* as well as admission to the National Maritime Museum. Those wishing to present papers should contact Mensun Bound or Tim Dingemans, Oxford University MARE, 4 Butts Road, Horspath, Oxford OX9 1RH; for reservations, write to Sarah Draper, Archaeology Section, National Maritime Museum, Greenwich, London SE10 9NF.

Book Reviews

LIONEL CASSON AND J. RICHARD STEFFY, EDS., *The Athlit Ram* (College Station, TX: Texas A&M University Press, 1991). 9" x 12", 112 pages, 53 black and white photos, 30 drawings, map, bibliography, index. $72.50.

For much of antiquity, war at sea was based on the ability of ships to act as buoyant projectiles for ramming enemy vessels. Until recently, however, our knowledge of this most important of naval weapons — the waterline ram — was limited to historical texts describing its use and to iconographic depictions which are often diminutive.

Then, during a survey dive in 1980, the late Yehoshua Ramon noticed a piece of metal protruding from the seabed near the ancient site of Athlit, south of Haifa in Israel. Ramon had found an ancient warship's ram, long-buried in the sand. This ranks as one of the most significant underwater discoveries of recent times. Nautical archaeology has contributed immensely to our knowledge of ancient ship construction; its contribution to our knowledge of warships and their armaments had been negligible, however, until Ramon's discovery.

The Athlit Ram is the third volume of Texas A&M University Press's prestigious Nautical Archaeology Series. The book's editors are two of the foremost scholars of ancient nautical research. This book is the culmination of wide-ranging scholarly research on the bronze ram and the ship's timbers found encased in it.

The volume's only weak chapter is the first one, which contains a short description of the ram's discovery by Elisha Linder. No descriptions, photos, or sketches of the ram *in situ* are supplied, and one wonders if the excavators, led by Linder, bothered to record these details.

Next, J. Richard Steffy contributes a thoughtful study of the sixteen timbers found encased in the ram. For this account, Steffy had to invent words to define some parts of the ram's structure, as no current terms existed for these constructional elements. He also outlines the problems involved in extricating the timbers from the 465-kilogram bronze casing. Numerous photos and line drawings illustrate the process, and Steffy supplies a detailed catalogue of the timbers. Even a novice can understand the intricacies of the ram's construction thanks to Steffy's clear and concise writing style.

There follows an exquisitely detailed discussion of the order of construction. Here Steffy seems to be reaching the very thoughts of the master builders, as he discusses the differences and the similarities between the construction of warships and merchantmen and speculates on the construction of the ship aft of where the ram timbers had rotted away.

Contrary to the modern perception that ram-tipped warships were light, these vessels needed considerable weight to achieve the momentum required to damage the enemy; speed alone was insufficient. Steffy emphasizes that the ship itself was the weapon; the ram was merely the warhead through which the momentum of the warship was imparted to its objective.

This form of ram, with three narrow fins, was apparently designed to prevent it from piercing the enemy's hull. Were this to occur, it could have spelled disaster for the attacking vessel, locking her into a deadly embrace that would allow other enemy ships to ram the erstwhile attacker broadside. Instead, the three-finned ram was intended to open the planking seams which were held together by mortise-and-tenon joinery. Once torn loose, notes Steffy, the tenons would have held the seams open, permitting seawater to pour into the hull of the enemy vessel.

Because of some asymmetrical aspects of the ram casing, Steffy believes that the ram was cast to the shape of the bow rather than the bow prepared to fit the ram. He also believes that the Athlit ram came from a warship that was washed shoreward stern first; the weight of the ram would then have caused it to fall off as the hull slowly disintegrated.

Following Steffy's analysis, Shlomo Eisenberg describes how the ram underwent radiographic study using radioisotope cobalt and discusses the metallurgical aspects of the ram. Its casing was a complicated affair. Eisenberg concludes that it was accomplished with sand molds and suggests a hypothetical reconstruction of how the ram might have been cast with a battery of no less than thirty furnaces.

Next, William M. Murray studies the evidence for the ram's date and provenance derived from the symbols that appear on it. Of these there are four, three of which appear on both sides of the ram: a bird's head and neck, a single wreathed helmet surmounted by an eight-pointed star, and a decorative handle device (incorporated into the troughs and fins of the ram). A herald's staff bound with a fillet, located on the ram's cowl nosing, is the fourth element.

Murray suggests that these symbols represent the ram's issuing authority. The identity of the government that produced the ram, argues Murray, must be based on a match of all four symbols appearing together on a coin, or a series of coins, in which they are rendered in a manner stylistically similar to their appearance on the ram. Where do all four of these signs appear together? They are found only on the silver and copper coins minted on Cyprus by Ptolemy V Epiphanes; however, this repertoire of motifs may have continued in use into the early years of his successor, Ptolemy VI Philometor. Thus, the ram was probably cast on Cyprus sometime between the years 204-164 B.C. for use on a Ptolemaic warship.

Historical events during the reigns of these kings, and those of their immediate successors, give ample opportunity for the ship to have taken part, and perhaps been lost, in the skirmishing between Ptolemaic and Seleucid forces as they fought for possession of the Levant. On the other hand, the ship may have met its end in a storm, bashed against a lee shore.

The dendrochronological study of a timber from inside the ram suggests a date of about 180 B.C. for its felling, which agrees favorably with Murray's proposed date range. A single ^{14}C sample gave a date of 400 ± 130 B.C.; more than anything else, this emphasizes the danger of relying on a single radiocarbon sample.

Oared ships from the Hellenistic period are usually described by numbers: "fours," "fives," "sixes," etc., up to a huge "forty" built by Ptolemy IV. These assignations are thought to represent the number of men assigned to superimposed levels of oars, with several men at each oar. One's first impression on viewing the Athlit ram, now on permanent exhibit in Israel's National Maritime Museum, is that it must have come off one of the larger classes of Hellenistic warships. Not so, writes Murray. He directs us to Octavian's Campsite Memorial, erected where his tent had been pitched during the battle of Actium. Following his victory, Octavian built here a sixty-meter-long retaining wall to which he affixed rams removed from Antony's fleet. Although the valuable bronze rams have long since disappeared, the site still contains the sockets where rams of varying sizes had been attached to the wall. All the sockets presently visible are *larger* than the Athlit ram, suggesting that it came from a fairly small class of warship — perhaps a "five" but more probably a "four."

The next chapter, written by Lionel Casson with the assistance of Elisha Linder, deals with iconographical evidence for the evolution of the warship ram as a nautical weapon. Various ship types throughout antiquity — from seagoing freighters to small vernacular craft — carried bow constructions that ended in ram-like cutwaters or projecting bows. These were not offensive weapons but rather a form of bow construction favored by ancient mariners. The ram as a weapon is believed to have evolved first in Greece during the Geometric period. It appears first on Greek and then later on Phoenician warships, although its earlier appearance on Greek oared ships may have more to do with lacunae in the iconographic record than to past realities.

From its introduction as a nautical weapon, the ram went through four phases. Between the years 900-600 B.C. the ram was pointed, a development from bow structures seen in depictions of Mycenaean warships. By the sixth century B.C., the pointed ram had given way to a blunt ram with a boar snout. This type continued in use for two centuries. The three-finned ram, typified by the Athlit ram, came into use in the Mediterranean at the end of the fifth century B.C. This ram type may have been used during the latter part of the Peloponnesian Wars, and it was definitely this type of ram that destroyed Antony's plans of empire at Actium. The three-finned ram exits history ca. A.D. 100.

The final phase of the ram lasted from the second century until well into the Byzantine period; during this time blunt-faced and pointed rams capped the bows of warships. This turnabout was no doubt due to the function of the Roman navy at this time. As there were no longer any organized enemy navies to fight after Actium, Roman warships were used primarily in anti-pirate patrols or as rapid transports. Sometime in the Byzantine period, the ram disappeared silently from antiquity.

The sixth and final chapter, written by Lionel Casson, is an exquisitely concise exposé of the naval tactics that developed for ram warfare. A damaged Assyrian wall painting from Til Barship dated ca. 700 B.C. depicts an oared galley ramming another ship of which only the oars

remain. (For a color photo of this scene, see K. DeVries and M. L. Katzev, "Greek, Etruscan and Phoenician Ships and Shipping," in G. F. Bass, ed., *A History of Seafaring Based on Underwater Archaeology* [London, 1972], 56, fig. 9.) The earliest recorded naval battle in which the ram was used took place later, in 535 B.C. From then until Octavian's victory at Actium, ancient writers document some sixty naval battles of varying size and intensity.

Since the warship itself was the weapon, armed men were kept to a minimum on board warships. At Salamis (480 B.C.) each Greek ship carried no more than eighteen men-at-arms against the Persians. Compare this to the 100 to 150 men on each Christian galley at the Battle of Lepanto in 1571, when ships served as mobile battlefields.

During the age of ramming, a naval battle normally had several parts. The first phase was at missile range. (This was of little consequence until the introduction of catapults on board ships in the late fourth century B.C.) Next the ships parried and attacked, attempting to administer the fatal ram-blow.

Casson discusses various tactics used in naval battles. The *periplus*, or "sailing around," meant flanking the enemy's line and attacking from the stem. The *diekplus* was the preferred maneuver of the period, however. In this "sailing through," the attacker attempted to sweep away the enemy's oars, and then quickly turn and ram the ship from the rear. Slower fleets attempted to lessen the danger of the *diekplus* by engaging the enemy with their sterns toward the shore in closed waters where the faster ships could not maneuver.

Various other measures and countermeasures evolved in time. The *corvus* or "raven" is known from every schoolboy's history book. This cross between a grapnel and a boarding ladder won the day for Rome at Mylae in 260 B.C. during the First Punic War. The *corvus* went out of use soon thereafter, however, apparently the victim of a successful countermeasure. It is not mentioned after 256 B.C.

The volume ends with an appendix dealing with radiographic examination of the ram, a concise bibliography, and a detailed index. Rarely has an artifact received such meticulous study by such eminently qualified scholars as in this tome. This book is a valuable contribution that ranks among the best written in the field of ancient seafaring.

SHELLEY WACHSMANN

Texas A&M University

PAUL H. SILVERSTONE, *Warships of the Civil War Navies* (Annapolis: Naval Institute Press, 1989). 9¾" x 9¾", cloth, xiii + 271 pages, 210 illustrations, appendix, partial bibliography, indexes. $38.50.

The American Civil War has long been recognized as a proving ground for naval technology already in transition. Underseas weapons, rifled cannon, armored warships, rotating gun turrets, and even aircraft carriers (floating observation balloon platforms) were successfully tested in combat during the great sectional dispute. Yet despite the considerable strides made in naval weaponry and the acknowledged importance of naval participation in the war, there has never been a comprehensive, single-volume source book of statistical data on Union and Confederate forces afloat available to naval historians, researchers, and students of the period.

Those seeking armament, machinery, or dimensional data, for example, are faced with a limited number of published sources from which to draw such information. Those sources most often consulted include the extensive *Official Records of the Union and Confederate Navies During the War of the Rebellion* in thirty-one volumes (Washington, D. C.: Government Printing Office, 1895-1921), in particular Volume 1 of Series 2, which contains statistical data on warships of both navies; *Civil War Naval Chronology, 1861-1865* (Washington, D. C.: Government Printing Office, 1971), which contains a lengthy appendix on Confederate forces afloat; the eight-volume *Dictionary of American Naval Fighting Ships* (Washington, D. C.: Government Printing Office, 1959-1981); and several other sources, such as John Thomas Scharf's *History of the Confederate States Navy* (New York: Rogers and Sherwood, 1887) or Frank M. Bennett's *The Steam Navy of the United States* (Pittsburgh: Warren, 1896). These publications, however, suffer from several flaws which negate their usefulness as reliable reference books for vessel data. None cite their sources of information, all are outdated and thus replete with errors, and all are now out of print and often difficult to find. As a result, the researcher must frequently resort to a search of primary sources in order to find reliable information on the period's warships. For most, this is a tedious and time-consuming exercise, and unless the researcher is familiar with available primary sources, it is an exercise in futility.

The recently published *Warships of the Civil War Navies* by noted naval historian Paul H. Silverstone attempts to redress the glaring lack of a reliable source book on American Civil War naval combatants by providing a handy single-volume reference. In the attempt, however, Silverstone is only partially successful.

Following a format similar to other books he has written, such as *U.S. Warships of World War II* (London: Ian Allen, 1965, and later editions), the author provides each vessel's builder, construction dates (including keel-laying, launching, and commissioning), tonnage, dimensions, machinery, complement, armament, and armor protection (if applicable). He then gives a brief service record for each vessel, lists any prizes captured, and provides additional information not covered in other categories. He includes photographs of many of the ships, particularly Federal vessels, and substitutes drawings or paintings when photos of some of the more prominent ships do not exist. This is especially true for Confederate warships, which were less likely to be photographed. Many of the images provided are previously unpublished.

Warships, as one would expect, is divided into separate sections for each navy. The Union portion is subdivided into sections based on vessel type: armored, unarmored, acquired, sailing, acquired sailing, and the Mississippi River Fleet. Additional listings are included for the U.S. Revenue Cutter Service and the U.S. Coast Survey. The Confederate section is somewhat similarly divided, with listings for ironclads, cruisers, sailing vessels, gunboats, torpedo boats, and blockade runners, but it also contains lists based on geographic locale: Louisiana (including the Mississippi River Defense Fleet), Texas, Gulf Coast, Atlantic Coast, Virginia, and inland rivers areas.

While this system works well for the researcher seeking data on Federal combatants, the breakdown of Confederate vessels is somewhat cumbersome and confusing due to the overlap between the vessel type and the geographical categories, especially when dealing with gunboats. One is unsure whether to look for a particular gunboat under the vessel heading or under the geographical area in which it operated. Likewise, there seems to be no particular rationale in the placement of gunboats in these categories; for example, the Maury gunboats *Hampton* and *Nansemond* are listed under "Gunboats," while their sister *Drewry* is carried in the "Virginia Area" section — yet all three operated together as part of the James River squadron. Had the author limited the division of Confederate forces to vessel type, with the exception of the singular Mississippi River Defense Fleet, then *Warships* would be far simpler to use.

Fortunately, the book is well-indexed with separate Union, Confederate, and compound-name indexes which make searches much less complicated. A list of shipbuilders and engine builders is included as an appendix but is not indexed to the main body of the text. Such an index would have increased significantly the usefulness of the book as a reference. One omission noted in a cursory check of the indexes is the Union ironclad *Keokuk*.

Silverstone provides a brief partial bibliography, but the sources cited serve mainly to illustrate the principal flaw of *Warships* — its reliance, for the most part, on outdated secondary works, including those previously mentioned. By relying on such sources, the author perpetuates many of the statistical errors contained in those volumes that could have been corrected by a greater use of primary sources. While the problem is not as severe with the purpose-built Union ships, the acquired U.S. vessels and virtually all of those under Confederate colors demand more study.

Greater use of primary sources, whether they be enrollment documents, contemporary publications, or builders' drafts and specifications, would fill in many of the book's gaps and correct numerous errors. An examination of customshouse enrollment documents in National Archives Record Group 41, Bureau of Marine Inspection and Navigation Papers, for example, would supply dimensions for the CSS/USS *Little Rebel*, CSS *McRae*, CSS *Mobile*, and others. Use of these documents would also establish that there were two steamers named *Spray* which served the Confederacy: one built at Wilmington, Delaware, which operated at Wilmington, and another built at New Albany, Indiana, which served at St. Marks, Florida. Furthermore, an examination of numerous original builders' plans in National Archives Record Group 19 and 45, at Emory University, and at other institutions, would provide additional dimensional data on several Confederate warships and place the gunboat CSS *Macon* in the correct 150-foot class rather than the 130-foot *Chattahoochee* class. An examination of U.S. Navy plans would likely provide similar corrections and additions.

Even a closer analysis of the thirty-one volume *Official Records of the Union and Confederate Navies* would similarly yield new information and correct old. A case in point is the CSS *Tennessee*. Silverstone gives the overall length of the vessel as 209 feet, yet the Union survey made after her capture indicates that this dimension is actually her length on deck (*Official Records* 21: 546-50). A scale deck plan of the *Tennessee* given in the same volume (facing p. 582) gives approximate lengths of 209 feet on deck and 217 feet overall. Reliance on the statistical data contained in Series 2, Volume 1, which gives the vessel's length as 209 feet without qualifying it as length on deck, has perpetuated this error over the years. This is but one example of the danger of placing too much reliance on the "Statistical Data of Ships" section of the *Official Records* and the many reference works that have relied upon it without verifying the information in primary

sources. There are just too many errors and omissions therein.

The user must also be cautious when using the section on Confederate blockade runners. It ostensibly contains only government-owned vessels, but an examination of the extensive data in Stephen R. Wise's *Lifeline of the Confederacy: Blockade Running During the Civil War* (Columbia, SC: University of South Carolina Press, 1988) reveals otherwise. Many of the runners listed by Silverstone were actually privately owned, while several prominent government ships, such as the *Fingal* and the *Coquette*, are omitted altogether.

It is inevitable that errors will exist in a volume that attempts to provide descriptive information on some fifteen hundred warships from an era so neglected by naval historians. Those enumerated here are not meant to belittle the author's efforts, for he has provided a considerable service to researchers by pulling together so much material from so many hard-to-find sources. Instead, they graphically illustrate the need for more primary research into the warships comprising the Civil War navies. One hopes that the author and the publisher will continue to issue this work in revised editions, taking advantage of continued research into the subject as well as the publication of new works which provide additional data — including Wise's blockade running study and Donald L. Canney's *The Old Steam Navy: Frigates, Sloops, and Gunboats, 1815-1885* (Annapolis: Naval Institute Press, 1990), neither of which were available to the author. *Warships of the Civil War Navies* is not yet the definitive single-volume reference the author intended, but when consulted with care it is useful, and it is a major step toward that end.

A. ROBERT HOLCOMBE, JR.

Confederate Naval Museum
Columbus, Georgia

DONALD L. CANNEY, *The Old Steam Navy. Volume 1: Frigates, Sloops, and Gunboats, 1815-1885* (Annapolis: Naval Institute Press, 1990). 11.25" x 8.75", cloth, xx + 204 pages, illustrations, diagrams, appendices, bibliography, index. $49.95.

For too long, naval historians have neglected the old United States steam navy. Some might say that it deserves inattention, for it was, after all, made obsolete at the end of the nineteenth century by the new steel navy, the precursor of the modern U.S. Navy. Still, it was from the older navy that the newer emerged. Moreover, the former's years included America's most deadly war, during which the older navy seemed near to becoming a world-class institution. The naval events of the Civil War have not, of course, been ignored by historians. Why, then, the neglect of the steam navy prior and subsequent to that conflict? It is true that the Naval Institute Press recently published a collection of biographical essays of the captains of that fleet in its *Makers of American Naval Tradition* Series, but not since Frank Bennett's 1896 *The Steam Navy of the United States* has a study been devoted to the live oak ships of the early steam navy. No longer is this true; Donald Canney is proceeding to fill the gap.

For this first of his two projected volumes on the subject, Canney has plumbed the National Archives and other repositories for photographs, ships' plans, reports, letters, and other documents. He has gathered these together with data from printed sources into a work that in breadth and depth already far surpasses Bennett's. Canney's text, ". . . beginning with Robert Fulton's steam harbor defense battery of 1815 and concluding with the last wooden sail-and-steam sloops of the 1880s" (p. xix), provides facts concerning over 150 steam frigates, screw sloops, gunboats, and cruisers, in detail sufficient to satisfy the most ardent naval enthusiast. Treating the vessels roughly in the order in which they were constructed, launched, and commissioned, the author describes their hull designs, dimensions, rigging, machinery, horsepower, armament, performance (under sail, steam, and in combination), and service. Readers unfamiliar with steam engineering terminology will find Canney's glossary helpful. Other appendices supply tables that conveniently summarize vessel data and give information about constructors, dates of launchings and commissionings, and ultimate fates.

The book, however, is more than statistics. In the tradition of the Naval Institute, it is a handsomely produced volume with clear reproductions of photographs, diagrams, and plans of many of the ships and steam engines under consideration. Where the originals were too large or too deteriorated to be printed, Canney has carefully drawn facsimiles. The book is also a work of narrative history, for woven together with the descriptions of vessels are nicely crafted accounts of evolving naval technology, administration, tactics, and experiences.

Canney describes, for example, how in the early years the absence of technical schools and standards enabled some individuals to rise in the engineering profession by "self-proclaimed expertise, self-promotion, and, not uncommonly, political pull" (p. 39). Too often, the predictable result was unpredictable steam machinery. Canney also explains how increasingly centralized naval

administration led to increasingly complex interplay, not always harmonious, among naval secretaries, naval officers, ship architects, ship constructors, and engineers. Thus, he treats in some detail the postwar dispute between engineer Benjamin Isherwood and Admiral David Porter. The author also comments on tactics and explains how they mandated a greater reliance on steam propulsion. The U.S. Navy's need to overtake Confederate blockade runners "forced [it] to adopt a source of power comparable to [its] steam-driven opponents" (p. 94). Consequently, by the war's end the U.S. Navy was constructing vessels that, unlike prewar auxiliary steamships, were auxiliary sailing ships.

Finally, Canney manages to work in some descriptions of experiences on station. Considering operations in Asiatic waters, he notes how well double-ended gunboats adapted to riverine service and even describes their crew's quarters, characterized by a medical officer as affording "ample accommodations for all hands under all circumstances." Canney adds that "Such salubrious living quarters were virtually unknown in wooden naval vessels of any era" (p. 120). The latter pages of the volume describe the "Dark Ages (1869-1885), a period of retrenchment and reaction" that only closed with the Navy's 1880s inauguration of steel shipbuilding (p. 145).

The Old Steam Navy is a comprehensive, well-studied work that belongs in the libraries of both naval scholars and buffs. One eagerly awaits the author's second volume on armored and torpedo vessels.

JOHN D. MILLIGAN

State University of New York at Buffalo

GEORGE NAU BURRIDGE, *Green Bay Workhorses: The Nau Tug Line* (Manitowoc, WI: Manitowoc Maritime Museum, 1991, Publication B3, Association for Great Lakes Maritime History). 11" x 8½", paper, xvii + 202 pages, illustrations, endpaper map, financial charts, tables, bibliography, index. $25.95 (plus $2.50 shipping).

In late nineteenth- and early twentieth-century Green Bay, Wisconsin, an integral part of the day-to-day operation of that city's port were the Nau tugboats. These workhorses helped schooners and steamers into and out of port, sometimes going to their rescue when they were caught in ice packs. They towed log rafts, scows, and dredges, and pulled grounded freighters off reefs. They faced danger and occasional disasters, as when a tug was rammed by a steamer, but for the most part they performed the many small but important tasks of a tug's daily existence.

Burridge's detailed study focuses on one tug line at one Great Lakes port, but similar towing operations were going on in most Lakes ports during the years 1890-1917 — the period covered by the book. Thus, much of this history reflects what must also have been the normal functions and frequent problems of tugboat lines elsewhere.

The author holds an MBA from Harvard University and was an executive and then board member of the Charmin Paper Mills. More important, he is the grandson of the founder of the Nau Tug Line, George D. Nau. Burridge explains that: "Several years ago, while rummaging through the papers of my grandfather, I was struck by the unusual volume of financial records." That started his research for the book. To those records he has added information from many other sources, including the *Green Bay Daily Gazette*, which at the time followed shipping events with such care that the author has been able to reconstruct logs for most of the tugs, giving their detailed movements during the times they were owned by the line.

The Nau Tug Line developed through the efforts of the Nau family, German immigrants who in the 1850s became general merchants in Green Bay, owning a business block that contained their ship chandlery. In 1864 they became owners of the first of several schooners. When tugs were needed at the port of Green Bay, they bought one tug, then added others.

The Naus seldom owned more than four vessels, and these ranged from little harbor tugs to large overlake tugs. Thus the line was always of a size that one family could manage and usually of a composition that would respond to almost any need. In 1908 the company went from family ownership to corporate ownership, but the head of the family at that time, George D. Nau, still held 73 percent of the stock.

The author provides a chapter on each of the eleven tugs that the line owned. Another chapter describes a significant part of the tug line's business — rafting logs for the pulpwood and paper industry — and another leans heavily on the family records to explain the business and financial aspects of the company. The volume ends with two chapters that are almost appendices, one that lists the names and wages of the many seamen who worked for the line, and another that lists the names of the vessels towed by the tugs. Even though these lists are necessarily incomplete, they provide a good picture of the operation.

Burridge is a uniquely qualified author, one who has an interest in the subject, the records with which to work,

and the ability to do capable analysis of them. As a result, *Green Bay Workhorses* provides an excellent view of a small but significant part of the Great Lakes towing business during a quarter-century of its development.

JAMES P. BARRY

Columbus, Ohio

J. R. BRUIJN AND W. F. J. MORZER BRUYNS, EDS., *Anglo-Dutch Mercantile Marine Relations, 1700-1850* (Amsterdam: Rijksmuseum Nederlands Scheepvaartmuseum and Leiden: Rijksuniversiteit Leiden, 1991). 134 pages.

The ten papers which form this volume are taken from a maritime history conference held at the Scheepvaartmuseum, Amsterdam, in October 1990 on the subject of Anglo-Dutch maritime relations in the century-and-a-half from 1700. More specifically, the conference looked at the changing balance of maritime power between the two nations, which ran increasingly in favor of Britain throughout the period under consideration. Three main themes were addressed: technical innovations, the changing structure of trade and ship ownership, and the plight of seamen.

To explore the theme of technical innovation, Davids looks at technology transfer between the two nations, van Overbeek at ship construction, and Walker at ship propulsion. Davids argues that the net flow of technology began to reverse during this period as the Dutch emerged as the main recipients. He goes on to suggest that this reversal occurred earliest in the maritime sector because of the unique receptiveness of the Dutch East India Company and the navy, although this part of an interesting thesis needs to be bolstered by further evidence in order to convince readers that the organizational structure of these two institutions was either unique or especially receptive. Walker's essay is mainly restricted to developments in steam propulsion in the first half of the nineteenth century, while van Overbeek's focus is on the construction techniques used to build a single ship, the *Amsterdam*, in 1748. However, he does make the valuable general point of the importance of confirmatory historical evidence from different sources. In this case he combines contemporary ship plans with model replicas and the extant wreck.

The most interesting and generally applicable essays are those four dealing with trade and ship owning. Jackson provides an intelligent overview of the changing structure of British trade, shipping, and ports, building upon previous work he has completed in this area and offering examples from his work on Hull and Dundee. Of particular interest is Jackson's concluding remark that too much maritime history has been written in terms of competition and not enough on the significant degree of cooperation which must also have existed. There are a few individual points which one might dispute, such as the claim that the transatlantic timber trade connected only with the west coast British ports, or that shipowners were distinguished from investors only by the diligence with which they sought to maximize profits. Harcourt helps to fill a gap in maritime historiography by relating details of Irish investment in steamship ownership between 1820 and 1850. Ireland is generally compared favorably with Scotland and the ports of Liverpool and London in terms of total steam tonnage and average vessel size, although it might have been helpful to know how the areas compared in terms of total ship ownership in order to make these comparisons more valid. Harcourt offers an interesting explanation for Irish steam investment in terms of the 1782 Anonymous Persons Act, which provided limited liability for sleeping partners seventy years before its general introduction in Britain. It may be worth remembering, however, that limited liability had only a restricted impact upon steamship investment in mid-Victorian Britain. Wegener Sleeswyk looks at ownership and finance in Friesland shipping in the eighteenth century through two examples, one a managing owner and the other an individual investor. His main conclusion, that ship managers found it most difficult to attract investors into an enterprise when the prospects for shipping were poor, should come as no great surprise. Dillo compares the organizational and cost structures of the English and Dutch East India Companies and argues that the former's decision to disintegrate vertically from the middle of the eighteenth century left it vulnerable to a small clique of owners of specialist vessels who were able to increase freight rates. When the Dutch chartered vessels, they were able to obtain lower rates by accepting general trading vessels where the freight market was more competitive.

The final section of the conference proceedings, on seamen, begins with an essay by van Royen attacking research methods used in British maritime history as being based too heavily upon atypical quotations. The Dutch model, which is seen as "matured" and "serious business" (p. 103), is based upon computer analysis of mass data. While van Royen undoubtedly highlights some of the weaknesses of English maritime history, he might be a little more critical of macroeconomic data as the sole basis for historical research: qualitative and quantitative evidence are best used in support of each other. The

subsequent paper by Williams on British seafarers in the first half of the nineteenth century appropriately eschews quantitative evidence by drawing attention to the unreliability of extant data sources for this period. Williams describes increased labor productivity and discusses the impact of state intervention on the personnel of the industry. Finally, van Alphen looks at the financial bonds of Dutch seamen ashore with particular reference to crimps or "soul sellers." He also discusses "soul buyers," or dealers in the long-dated IOUs of seamen, although the obvious comparison with bill discounters is not made. Van Alphen makes the interesting observation that many soul sellers were women operating a business with the assistance of other family members. These women were most often the wives of seamen or those in the professions which could be used to their benefit, such as tailors or liquor merchants, to provide for the needs of seamen.

As conference proceedings go, this set generally makes good reading. There are central organizing themes, the standard is mostly consistent, and there is a combination of new research and worthwhile surveys. The average length of paper, however, is only about ten sides. Some of these themes deserve more, and one hopes that further research is in progress.

SIMON VILLE

Australian National University
Canberra

WILLIAM MORRISON ROBINSON, JR., *The Confederate Privateers* (Columbia, SC: University of South Carolina Press, 1990, reprint of 1928 edition). Cloth, 344 pages, illustrations, bibliographic essay, footnotes, appendix, index. $29.95.

The United States Constitution provides to the legislative branch of the government the power to "grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water." The fact that this is one of only seventeen specifically enumerated powers given to Congress by the Constitution underscores the central importance of privateers — privately owned, armed, and manned ships "commissioned" during war with a letter of marque — in America's early wars. In today's world of satellites and smart bombs, this "power" is completely archaic, but when the Civil War began in 1861, the Confederacy had high hopes that "private" naval warfare could wreak havoc on Union commerce. William Morrison Robinson's 1928 study of Southern privateering, reissued in 1990, is the story of the failure of the South's privateering effort.

The first two chapters are wonderfully done. Robinson captures how secession electrified the South and how one of the new Confederate government's first priorities was to establish the legal framework to allow privateering. Five days after Fort Sumter was bombarded, President Jefferson Davis issued a proclamation inviting offers for letters of marque. Patriotism was a secondary concern. The offerers were entrepreneurs, and the legal framework was designed to create the right incentives (prize money) to induce privately owned ships and private crews to come forward. Robinson observes, however, that by 1861, privateering was a "relic of a vanished civilization, . . . wholly inconsistent with the new era of rapid communications" (p. 3).

However sensible Robinson's observation might seem, his history may not bear out his premise. In 1861, the telegraph was an invention limited to land; ships out of sight of land were on their own, which should have helped privateers. Moreover, although many Union warships were steam-powered, so too were some Confederate privateers, and the greater speed might have made privateers' strikes more scattered and unpredictable. Robinson does not show that any of the privateers were captured or sunk because of the telegraph or the Union's technological edge.

Rather, it was Britain's refusal to allow the belligerents' prizes to enter its ports or those of its colonies for condemnation and sale that doomed Southern privateering. Robinson concedes that the British decision was a "severe blow" (pages 26-27) because it meant that the quick disposal of prizes was impossible. As the Union blockade tightened, privateers' prizes had to run the gauntlet to get into a Southern port, making the entire effort difficult and less profitable.

Most of Robinson's focus is on the outfitting, manning, and cruising of the specific Confederate privateers. The ship histories are occasionally riveting, occasionally dull. Robinson provides as much detail as he can about each ship, lists the people who subscribed to the shares of the vessel, describes the technological advances made by the Southern entrepreneur-navalists, and portrays the tribulations of the captured crews held in Northern jails and tried for piracy.

The Georgia-born Robinson's politics are suspect, however. He refers to the 1861-65 struggle as the "War of Secession," a revolution of the nationalism of the Northern states against the original concept of autonomous states embodied in the Constitution and defended by the South (page 343). He regards the Confederacy as a sovereign, autonomous state. Those views may be indulged, but his

racial views are jarring to modern sensibilities. For example, Robinson downplays the epic nature of the recapture of the *S. J. Waring* from a privateer's prize crew by its black cook, Tillman, who killed three of the five in the prize crew and single-handedly sailed the schooner into New York from outside of Charleston. Instead, he refers to Tillman as a "splendid physical specimen" and a "black giant" (he was five feet, eleven inches tall) and implies that his acts were tantamount to the murder of hapless innocents (pages 85-88).

Nonetheless, *The Confederate Privateers* will appeal to those interested in the Civil War's naval aspects as well as the interplay of law, entrepreneurship, and war. If the Civil War saw the destruction of a society based on a peculiar institution, it was also, as Robinson shows, the curtain call for the peculiar institution of privateering.

FREDERICK C. LEINER

Baltimore, Maryland

SIR ERNEST SHACKLETON, *South: The Story of Shackleton's Last Expedition, 1914-1917*, ed. Peter King (North Pomfret, Vermont: Trafalgar Square Publishing, 1992). 8¾" x 10", cloth, 207 pages, 160 photographs, plus illustrations, maps, glossary, index. $29.95.

When Amundsen reached the South Pole at the end of 1911, he ended the harried international race to be first at the southernmost spot on the globe. Yet it was not long before new goals were being pursued in the Antarctic. Although Robert Scott had died in his attempt for the pole that same year, Sir Ernest Shackleton was soon to organize the Imperial Trans-Antarctic Expedition, which is the subject of this volume.

Shackleton's goal was to make the first crossing of Antarctica via the South Pole. As measured across the waist of the continent stretching between the Ross and Weddell Seas, the distance was about 1,800 miles overland. Shackleton's plan required two ships, one to cover each terminus of the route. The main sledging party — by this time Shackleton had given up on his earlier reliance on ponies and motorcars in the Antarctic in favor of dogsledges — would push inland from the Weddell coast, while a second party set up food caches along the last stretch of the route to resupply the crossing party as it approached the Ross side.

While Shackleton describes the expedition's scientific objectives — to determine the extent of the Victoria mountain chain and to make certain other geographical, geological, biological, and meteorological observations — the book is free of mention of any scientific work other than occasional references to data-gathering and descriptions of sea ice conditions. Thus, *South* comes down to being a story of adventure.

And quite a story it is. Soon after Shackleton's ship *Endurance* and her crew headed south past South Georgia and the South Sandwich Islands about Christmas 1914, they encountered pack ice which prevented a landing and trapped the ship for eleven months in a grinding, squeezing life of uncertainty. After drifting nearly seven hundred miles back northward in the ice, *Endurance* finally sank in November 1915, leaving the twenty-eight men on the ice. Attempts to move the unwieldy ship's boats by sledges were unsuccessful, so the group lived in a series of tent camps on the ice, subsisting for five more months on sledging rations and penguin and seal meat. After drifting another four hundred miles north, they were able to make a boat crossing to uninhabited Elephant Island. Leaving most of the crew there tucked onto a narrow shingle of beach, Shackleton and three others sailed 650 miles in an open boat to South Georgia, then trekked across the wild southern neck of the island to reach the whaling station at Stromness in May 1916. Shackleton spent three months rescuing the Elephant Island contingent before heading to New Zealand to check on the fate of the Ross Sea party. The ill-fated story of the ship *Aurora* — which separated from its moorings and drifted rudderless in ice for nine months — and of the land party abandoned in McMurdo Sound with few provisions is another tale of endurance under harsh conditions.

Shackleton relates these harrowing episodes of privation, courage, persistence, and optimism in the offhand manner of the late-nineteenth-century English adventurer. Based on his own journal and those of his companions, Shackleton's account is written in a spare and gripping style. Its terseness reveals a workaday mind lacking the curiosity and broad interests of observation and description of a James Cook or a Charles Wilkes, among some of the earlier Antarctic explorers.

South was originally published in 1919 and has been republished many times. Peter King has chosen the 1922 abridged edition, which includes the marvelous photographs of Frank Hurley which cover nearly all of the expedition (although those of South Georgia were recreations taken after the fact). In marginal notes he fills out many parts of the story and explains points of controversy from the diaries of other expedition members and

from published biographies of Shackleton. My only complaints are that sometimes his photo captions and marginal notes are not complete enough, leaving the reader confused about the location of place names, the identity of persons, and the like. Overall, however, the book is well done, handsomely produced, and a good addition to the literature of Antarctic exploration.

C. JEFFREY STANN

The Smithsonian Institution

GARY E. WEIR, *Building American Submarines, 1914-1940* (Washington, D. C.: Government Printing Office, 1991). 9½" x 6½", paper, xv + 166 pages, 40 illustrations, bibliography, notes, index. $8.50.

"Everything you ever wanted to know about building submarines, but were afraid to ask," might be an apt subtitle for this monograph on the policy and decision-making processes behind the U.S. Navy's early submarine program. This reviewer can attest that Gary Weir conducted exhaustive research among the Navy's records at the National Archives and Records Administration, as well as at the Submarine Force Library in Groton, Connecticut and at the David Taylor Research Center in Carderock, Maryland.

All too frequently, academic historians tend to minimize the potential contributions of U.S. government historical programs. *Building American Submarines*, however, is an outstanding product of one of the oldest official historical programs, the U.S. Navy's Naval Historical Center in Washington, D. C. It would be problematic to speculate on whether a private or academic researcher could have expended the time and funds necessary to produce this volume. Weir, however, spent thousands of hours combing through hundreds of feet of records. A private project, moreover, almost certainly would not have remained this focused on a relatively narrow thesis.

Weir has produced a fine and well-balanced study of America's submarine construction effort. He begins his narrative with the Navy's reluctant and tenuous first purchase of John Holland's *Holland VI* in 1900 and carries the story forward to the eve of World War II with the explosive expansion of the submarine construction program. The author traces the tortuous paths followed by Navy planners and engineers in developing the F, E, T, O, and R classes, culminating in the successful S class near the outbreak of hostilities in World War I.

The interwar period allows Weir to develop a description of government relations with private industry on a highly complex project. This could well serve as a case study of the development of the military-industrial complex. Weir takes great pains to outline the areas of cooperation and conflict between the Office of the Secretary of the Navy, the Office of the Chief of Naval Operations, and the Bureaus of Construction and Repair and of Engineering, with Electric Boat Company and a host of subcontractors. Weir's treatment of these relationships is not for the casual or general reader; rather, serious students of the broad subject of private enterprise and government would be well-advised to read this study carefully.

Building American Submarines is a valuable and significant addition to the burgeoning field of technological history. Gary Weir has accomplished a worthy task in presenting this subject in a readable and understandable volume.

RICHARD A. VON DOENHOFF

National Archives
Washington, D. C.

FRANCIS B. LOTHROP, JR. 1991 AWARD

The Peabody Museum of Salem-Essex Institute congratulates the 1991 winners of the Francis B. Lothrop, Jr. award for the best articles appearing in THE AMERICAN NEPTUNE, Volume 51 (1991):

First Prize
RAYMOND E. ASHLEY
The Search for Longitude

Second Prize
RICHARD EDDY
Defended by an Adequate Power: Joshua Humphreys and the 74-Gun Ship of 1799

Honoring excellence in maritime history, the annual Francis B. Lothrop, Jr. award recognizes the two best works published in THE AMERICAN NEPTUNE during the previous calendar year. Announcement of the competition will appear in THE AMERICAN NEPTUNE.

Forthcoming Maritime Events at
The Peabody Museum of Salem-Essex Institute, Salem, Massachusetts

500

The Nineteenth New England Medieval Conference

COLUMBUS AND THE MEDIEVAL MARITIME TRADITION: EUROPEAN AND ISLAMIC PERSPECTIVES

23-25 October 1992

Columbus, an ambitious explorer from a complex world of interaction between European and Islamic cultures, took full advantage of the contemporary political, economic and scientific situation to become a pivotal figure in history. The Nineteenth New England Medieval Conference provides an opportunity to examine Columbus in this context. Scholars from a wide variety of academic institutions will present insightful views and analyses of Columbus and his contemporary world. Discussion sessions follow each set of presentations, several focused on ships and maritime affairs.

Friday, October 23; Evening address 8:00 - 9:30 PM. Saturday; Morning and afternoon papers and discussion, evening banquet and address by Timothy Runyan 8:30 AM - 9:30 PM. Sunday, Guided Museum Tour 10:00 - 12:00 AM. Registration fee $30, $15 seniors, spouses, students; after Sept. 21 $40, $20 other. Banquet fee $35. Conference brochure available from Publications Dept., Peabody Museum of Salem-Essex Institute, 508-745-1876 x 172. Please make reservations no later than October 1.*

Public is invited to the Friday evening address: *Columbus and European Views of the World* by noted author William D. Phillips, Jr. 8:00 - 9:30 PM. $8

Coming in 1993

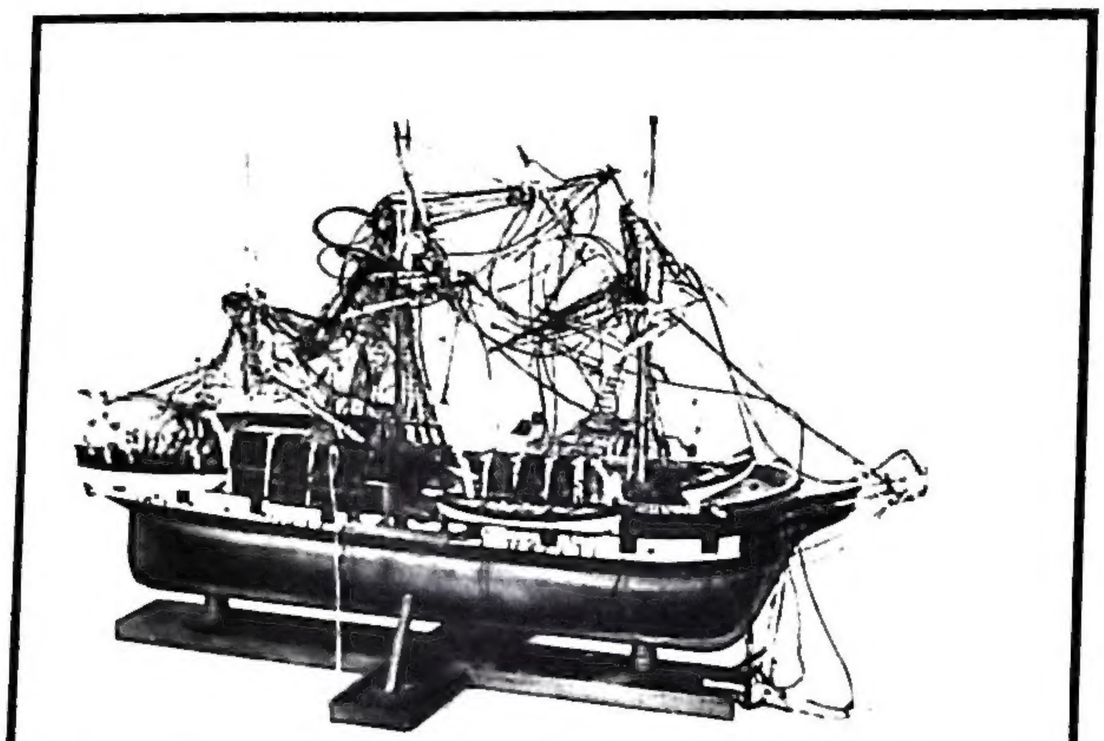
February 28 through June 2

Embark with us on a fantastic adventure through history on the high seas. Four hundred years of magnificent marine paintings and objects from the world's most renowned maritime museum, in the first-ever tour of the U.S.

THE *Great Age of Sail*

TREASURES FROM THE NATIONAL MARITIME MUSEUM OF GREENWICH, ENGLAND

*Information & Reservations: Publications Dept., Peabody Museum of Salem-Essex Institute, East India Square, Salem, MA 01970



R. Michael Wall's
AMERICAN
MARINE MODEL
GALLERY

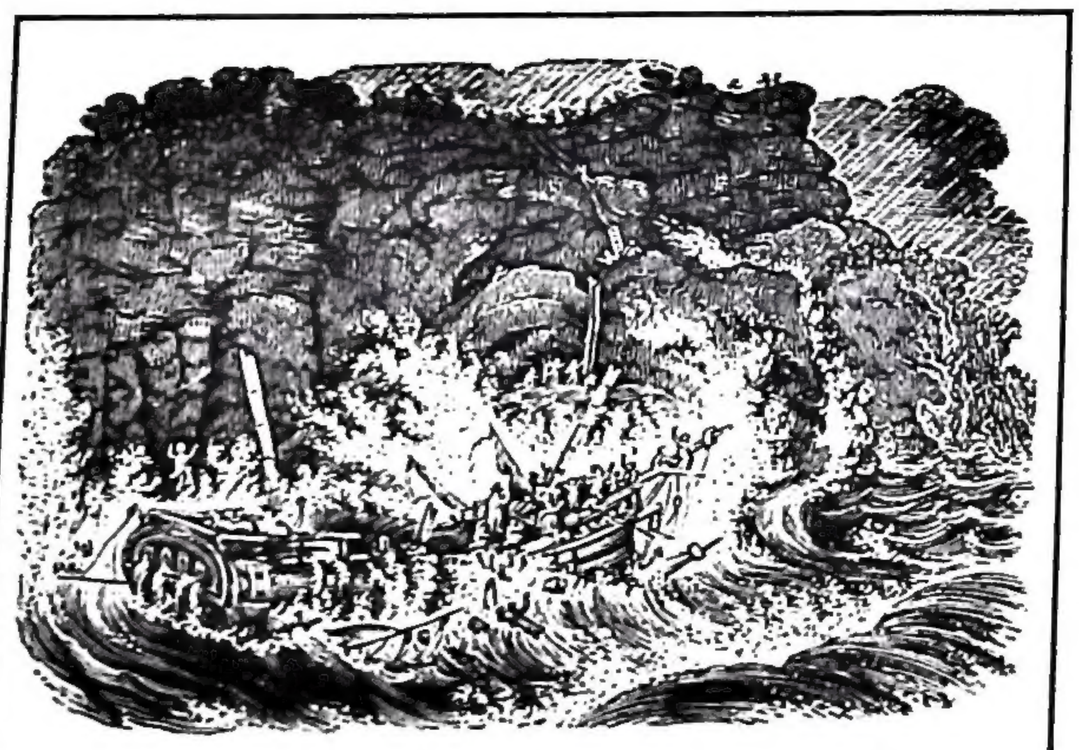
The largest, most experienced dealer of Museum Quality marine models.

RESTORATION APPRAISAL
CUSTOM DISPLAY CASES

MEMBER:
International Congress of Maritime Museums
International Society of Fine Arts Appraisers, Ltd.
Nautical Research Guild

Send for free information.
Appointment preferred.

Dept. AN 12 Derby Square, Salem, MA 01970 • 508-745-5777

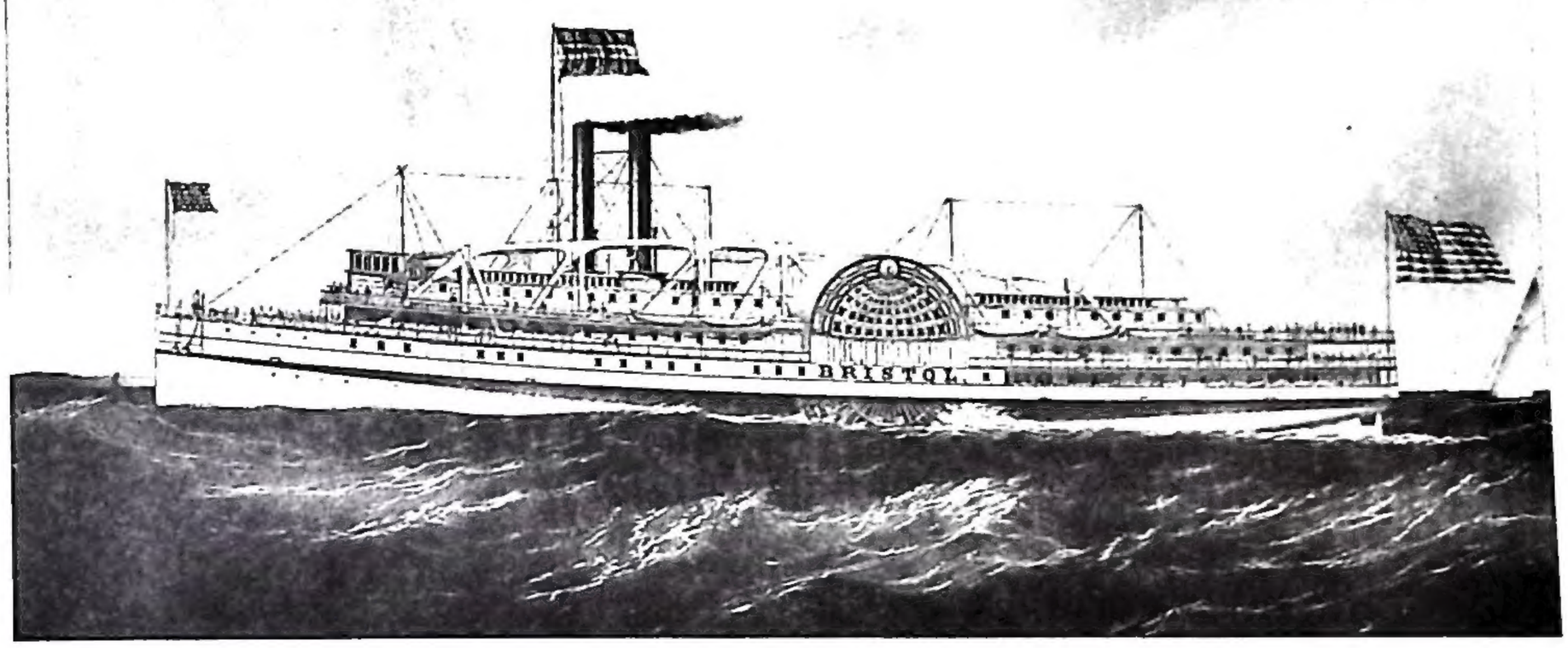


Order From
Society for Historical Archaeology
PO Box 30446
Tucson, AZ 85751 USA

Price: $15.00 US + S/H
[S/H - US $1.75 Other $2.50]

Available October 1992

Underwater Archaeology Proceedings
from the
Society for Historical Archaeology Conference
Kingston, Jamaica 1992



NARRAGANSET STEAMSHIP COs. STEAMER - BRISTOL - NEW YORK AND BOSTON via BRISTOL, R.I.
Lithograph by Endicott & Co., 1875

AMERICAN MARINE PRINTS

WANTED FOR PURCHASE - AVAILABLE FOR SALE

ADVERTISING BROADSIDES - AMERICAN NAVALS - CLIPPER SHIPS
CLIPPER SHIP CARDS - STEAM SHIPS - YACHTING - WHALING

AMERICAN TOWN VIEWS - CURRIER & IVES
AMERICAN TWENTIETH-CENTURY PRINTS UP TO 1950

OVER NINETY YEARS EXPERIENCE DEALING IN FINE AMERICAN PRINTS

The OLD PRINT SHOP

Kenneth M. Newman

150 Lexington Ave. *at* 30*th* St., *New York, N.Y. 10016*

Established 1898 ★ ★ ★ ★ ★ ★ *Tel: (212) 683-3950*

CHARLES ROBERT PATTERSON

Charles Robert Patterson
(American, 1878-1958)
The American Clipper *BLACK HAWK*
Limited Edition Print of 950
21 x 28 inches
$135. unframed, $275. framed

Other Limited Edition Prints by Patterson
Available Upon Request. Brochure.

NEW Gallery Exhibition Catalog:
Down To The Sea In Ships, $10.00
19th & Early 20th C. Marine Paintings

QUESTER GALLERY

The Gallery of Exceptional Marine Art & Antiques

We are Interested in Purchasing Fine Paintings — Appraisal, Restoration & Framing Services

On The Green/P.O. Box 446N Stonington, CT 06378 Tel: (203) 535-3860 Fax: (203) 535-3533